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# Columbia University Bulletin of Information

## COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

ANNOUNCEMENT

1926-1927

PUBLISHED BY  
Columbia University  
in the City of New York  
MORNINGSIDE HEIGHTS  
NEW YORK, N. Y.

# Columbia University Bulletin of Information

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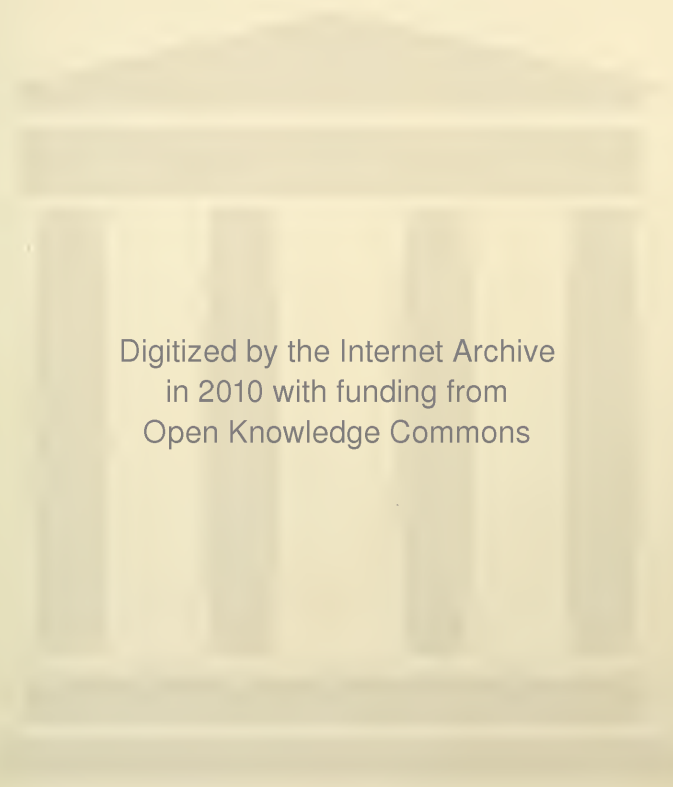
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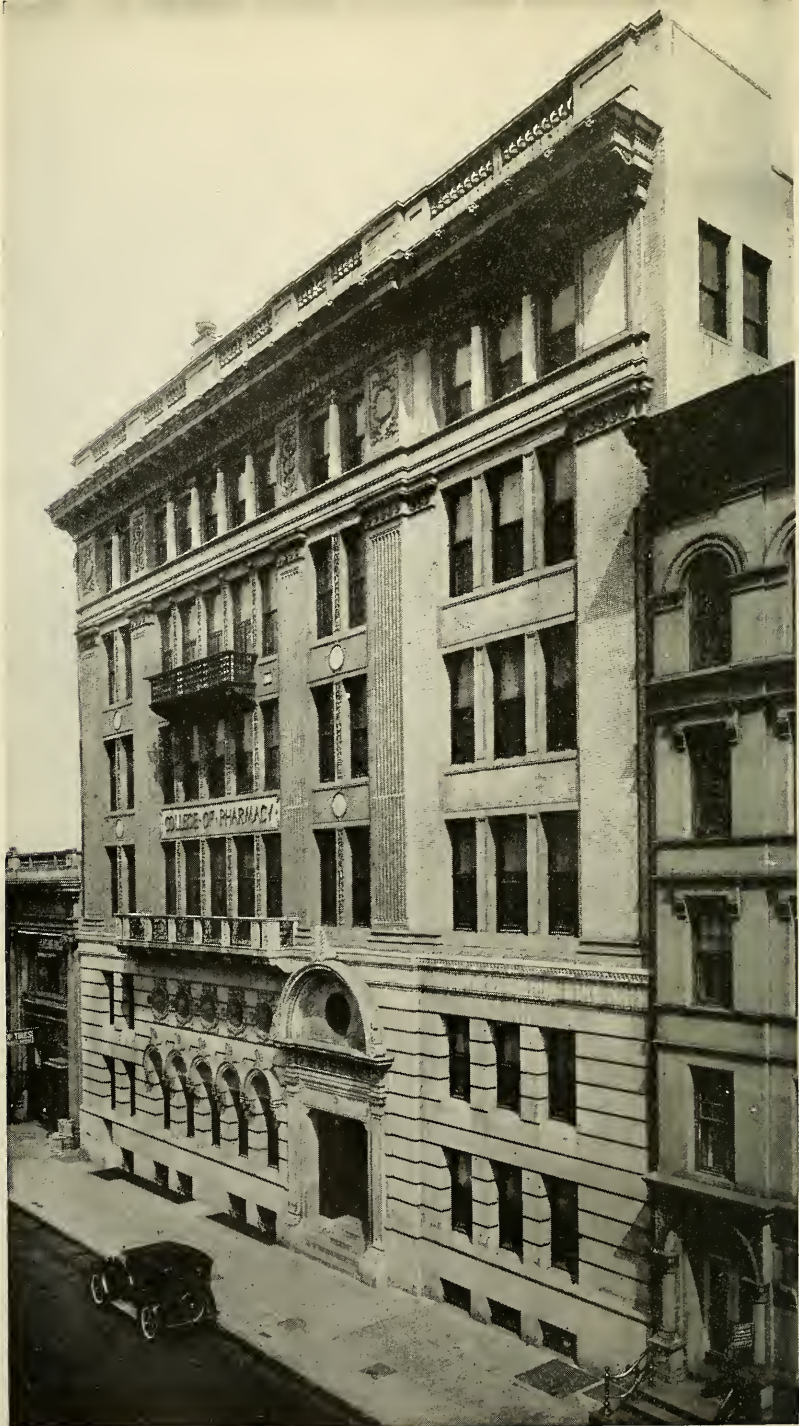
1. Annual Reports of the President and Treasurer to the Trustees.
2. The Catalogue of the University, price 25 cents, and the Announcements of the several Colleges and Schools, and of certain Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.
3. Other publications of the University, including the annual Directory of Officers and Students, are issued as Bulletins.

C. P. 20,000—1926

For special or more detailed information than is given in this announcement, applicants are requested to address the Registrar of the College, 115 West Sixty-eighth Street. His office hours are as follows: From September 1, 1926 to May 1, 1927, daily except Saturdays, 9 a. m. to 5 p. m.; Saturdays, 9 a. m. to 12 m. Other portions of the year, daily (except Saturdays), 9:30 a. m. to 4 p. m.; Saturdays, 9:30 a. m. to 12 m.



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COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

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**Bulletin of Information**

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CHARLES S. DANIELSON.....*Bursar of the University*



## GENERAL STATEMENT

Columbia University was founded in 1754 as Kings College by royal grant of George II, King of England, "for the Instruction of youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws and Doctor of Law (Doctor Juris); the School of Medicine with courses leading to the degree of Doctor of Medicine; the Schools of Mines, Engineering, and Chemistry, with courses leading to the Bachelor of Science degree, the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degree of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degrees of Bachelor of Literature and Master of Science; the School of Business, with courses leading to the degrees of Bachelor and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degrees of Bachelor of Science and Doctor of Dental Surgery; the non-professional graduate Faculties of Political Science, Philosophy and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy. In addition to these Schools and Faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; and the College of Pharmacy of the City of New York, with courses leading to the degrees of Pharmaceutical Chemist and Bachelor of Science.

The University maintains three Sessions during the year: The Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education and to take courses toward a diploma or an academic degree; Home Study courses are also offered to persons who are unable to take work in residence.

### ADMISSION

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standard of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the *Announcement* of each School will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

#### REGISTRATION

Before attending any University exercises each student shall present himself at the office of the Registrar and shall there file a registration blank giving such information as may be required for the University records together with a statement of the courses he is authorized to pursue. The places of registration are the general office of the Registrar of the University in University Hall; the College of Physicians and Surgeons, 437 West Fifty-ninth Street; the School of Dental and Oral Surgery, 302 East Thirty-fifth Street; the College of Pharmacy, 113-119 West Sixty-eighth Street; Barnard College; and Teachers College. To complete his registration the student shall pay the required fees.

Each person whose registration has been completed will be considered a student of the University during the period for which such registration is held valid. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

#### WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar. Applications for the return of fees must be made in writing at the time of withdrawal.

The Dean or Director of the school or faculty concerned may, for reasons of weight, grant a leave of absence to a student in good standing.

#### ANNOUNCEMENTS

The *Announcements* of each College or School, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

The *Announcement* of each School contains a schedule of fees and expenses for the courses in that School.

## LIBRARY

The libraries of the University contain about 1,025,000 volumes, exclusive of unbound pamphlets. The various departments of instruction have also special libraries in connection with their lecture-rooms and laboratories. The Avery Architectural Library, the Law Library, the Ella Weed Library of Barnard College, Teachers College Library, and the libraries of the College of Physicians and Surgeons, the School of Dental and Oral Surgery, and the College of Pharmacy, are all available to students of the University.

## RESIDENCE HALLS

There are four residence halls for men on South Field: Hartley and Livingston with 300 rooms each, Furnald Hall with 282 and John Jay with 476 rooms. Johnson Hall, on East Field, for women students in the graduate and professional schools and Brooks, and Hewitt Halls, maintained by Barnard College, are dormitories for women. Whittier, Bancroft, Seth Low, Grant and Sarasota Halls are residence halls maintained by Teachers College for its students. The University Commons, in University Hall, provides board at reasonable rates.

## GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the Medical Director. On the basis of this examination, advice is given as to the kind and amount of exercise best adapted to his needs. Barnard Hall, of Barnard College, and Thompson Hall, of Teachers College, are thoroughly equipped with physical training facilities for women students.

## RELIGIOUS INTERESTS

Service, at which attendance is voluntary, is held in St. Paul's Chapel at noon every week-day during the academic year, except on Saturdays. The Sunday service is held at four o'clock. Earl Hall, the home of the religious, philanthropic, and social organizations and interests of the University, is open daily to all students.

## GENERAL ASSEMBLY

The hour between 1:10 and 2 o'clock on Tuesdays is reserved each week throughout the year as a General Assembly hour, and no courses are held at this time in any school of the University, with the exception of the School of Dentistry, the College of Pharmacy and the Summer Session.

## MEDICAL SERVICE

The University Medical Officer has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable

diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. The University Medical Officer, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists and nursing care, will receive such information upon applying at the office of the University Medical Officer.

## THE COLLEGE OF PHARMACY

The ninety-seventh annual session of the College of Pharmacy, open to both men and women, will begin on Monday, September 20, 1926.

Prospective students should carefully note Rule No. 16 of the Pharmacy Laws of the State of New York, part of which is as follows:

"*c* Matriculation. A matriculant of any registered school of pharmacy in New York State must possess the 'Registered Apprentice Certificate' before matriculation is completed. Any student who has not had practical experience prior to entering the school or who has had experience in another State than New York, shall be registered as an apprentice by the executive officer of such school."

An amendment to the pharmacy statute, which becomes Chapter 338 of the Laws of 1924, provides that a graduate of a registered school of pharmacy who is not 21 years of age and who has not had the required practical experience in a registered pharmacy, may be admitted to the examination in theoretical subjects only and on passing the same may thereafter be required to take only the practical examination when he has met the statutory requirements of the law. Such applicant does not receive any certificate upon passing the examination and is not granted any right or privilege because he passes the theoretical examination. A second fee of \$10.00 must be paid when taking the practical examination. The amendment became operative on January 1st, 1926.

Students who have served in either the Medical Department of the U. S. Army or the Hospital Corps of the U. S. Navy, and whose discharge papers note such service, may receive credit therefor toward meeting the experience requirement of the State Board of Pharmacy.

The demand for graduates of this College to fill responsible positions as clerks and managers of pharmacies is steadily increasing, and more rapidly than our ability to supply graduates, in spite of the present very large attendance. Coincident with this increasing demand, there has been a steady rise in the rates of compensation.

Still more noteworthy, is the increasing call for graduates of advanced courses, to fill other professional positions.

The general application of federal, state and municipal food and drug laws is creating a demand for thoroughly trained pharmaceutical inspectors and analysts. The obligations thus imposed upon manufacturers and merchants must result, and are doing so, in compelling them to employ scientifically trained assistants for responsible services which have heretofore, in very many cases, been left to incompetent and irresponsible employees. For this field of service the ordinary graduate in pharmacy is wholly unqualified.

Another class of demands that are frequently encountered is for instructors, professors and heads of departments in pharmacy schools. The teaching staffs in the schools of pharmacy of the United States now include nearly one thousand members. However well qualified these instructors may be as to knowledge of the subjects that they are engaged in teaching, few of them have received the special training in the theory and art of teaching which is considered essential

for teachers in other schools. Special provision for this work, as an elective, is called for in the complete pharmaceutical curriculum.

To meet these higher requirements, three and four year courses of study, leading respectively to the degrees of Pharmaceutical Chemist (Ph.Ch.) and Bachelor of Science in Pharmacy (B.S. in Phar.), have been established.

It is particularly worthy of note that the Education Department of the State of New York has adopted these conditions as a State requirement.

#### THE COLLEGE BUILDING

The location of the College is at one of the most readily accessible points in the City. Within two blocks are stations of the elevated and underground railroads, and the Broadway, Columbus and Amsterdam Avenue lines connect with nearly all surface lines in the City. The completion of the various tunnels under the Hudson, East and Harlem rivers has greatly facilitated and expedited suburban transportation. Central Park is within two blocks of the College, and the American Museum of Natural History and the Medical Department of the University are each about a half-mile away. The central buildings of the University are reached within fifteen minutes from the door of the College.

The College Building was erected after a study of the principal buildings of the kind in this country and abroad. Experience has failed to show any material feature in which it could have been better adapted to the purpose of pharmaceutical instruction, either theoretical or practical, but so great has been the increase in the applications for admission that it has been found necessary to provide greater accommodations in the form of an additional connecting building.

In its planning, two principal objects have been kept in view; first, provision for a large increase in the membership of the first and second-year classes; second, greatly increased and improved facilities for the work of the higher classes. In connection with the latter, extensive provision has been made for research work, by both faculty and special students. Our Library has also been greatly improved, the entire lower floor of the new building having been reserved for its accommodation.

#### THE LIBRARY

The Library is in charge, during College hours, of a trained librarian, who is ready to offer any assistance desired by readers. It contains the important works of reference required in the different departments of instruction, and for the various branches of science taught in the College of Pharmacy. It covers, indeed, a very broad field in all departments of chemistry, botany, and pharmacy. Should the resources of the College be insufficient for some special purpose, the student has recourse to such great library storehouses as the General Library of Columbia University, on Morningside Heights, the Library of the College of Physicians and Surgeons, School of Dental and Oral Surgery, the New York Academy of Medicine, the New York Botanical Garden, and others, and he will also be able, by special arrangement, to borrow from the great Library of the Surgeon-General's office at Washington.

The Library contains an extensive series of periodicals on chemistry, pharmacy, and botany, with their allied branches. All important journals relating to the work of the College are regularly received.

During regular College hours the Library is accessible not only to officers and students of the College, but also to the pharmacists of the city. Under certain regulations, books may be borrowed for outside use, but for obvious reasons important works of reference and unbound periodicals are not loaned. Library copies of the text-books in use by the College may not be removed from the library.

#### INFORMATION BUREAU

The Information Bureau conducted by the library staff is designed to furnish pharmacists with data required in emergencies and not available in the library of the average drug store. During the past years of operation the Bureau has met with gratifying success, and it is steadily growing in popularity.

The following paragraphs explain the methods employed in conducting the service.

1. Telephone inquiries will be answered cheerfully without charge. Residents of Greater New York or vicinity wishing to inquire about some pharmaceutical problem will call up the Information Bureau, Trafalgar 1733, and will receive information immediately if it is accessible.

2. Non-residents will have their problems answered by mail if they enclose a self-addressed stamped envelope.

3. Problems requiring extended research will be handled for a fee as moderate as consistent with high-grade service.

4. Translations of articles from foreign languages, either in full or in abstract, as well as transcripts of papers appearing in English or American pharmaceutical, chemical or botanical periodicals will be prepared for those desiring to pay for such service.

5. As in the past, all visitors to the Library, desiring to do their own research work, will be given courteous attention.

#### EMPLOYMENT FOR STUDENTS

The Registrar, so far as possible, assists students to secure such positions, in and about the city, as will not prevent them from regularly attending the College exercises.

The general plan adopted may be briefly stated as follows: Each pharmacist engages both a first and second year student, who shall work alternately three days during the week and half a day on Sunday. This allows the students half their time for College work and necessary rest. The College lectures are arranged so as to harmonize with this plan.

Any student wishing to secure employment should upon entering College communicate with the Registrar.

Within easy reach of the College are some three thousand pharmacies, where students who have had some experience in pharmacy may obtain employment with salary sufficient to pay the whole or a large part of their expenses while attending College. During recent years the demand for graduates of this College as clerks has been far greater than the available supply.

## COURSES OFFERED

Two Regular Courses of study are offered, known respectively as the College Course and the University Course, and three Evening Courses in the Departments of Materia Medica, Pharmacy and Chemistry. A Summer Preparatory Course is provided, designed to enable students so desiring to better prepare themselves for the fall supplementary examinations. A number of special courses have also been established, partly for the benefit of those regular students who desire, for any reason, to specialize in certain lines of work, and partly to provide instruction in individual departments for those who do not desire to take the full course. Certificates, but not diplomas, are awarded to the last-mentioned special students.

In response to inquiries frequently received as to the advantages of the University Course over the College Course, the following synopsis has been prepared:

1. Members of the University class only are recognized as students of the University, and certain of the University privileges are open only to them.
2. The University Class receives instruction during three, instead of two, years, and the amount of instruction per year is considerably greater.
3. The degree of Graduate in Pharmacy, earned by a two year course, is now scarcely recognized outside of the State of New York, where it will be substituted by a three year course beginning with the year 1927.

In the meantime, graduates of the University course only will be recognized as having met the 3 year requirement of certain states.

4. For the University Class, the College provides a thorough course of laboratory instruction in advanced Chemistry, Pharmacy and Physics and special courses in Microscopy and Bacteriology, consisting of both theoretical and laboratory instruction.

5. The University course extends throughout the academic year, with special instruction after the close of the College Course.

6. Not only is the degree of Pharmaceutical Chemist recognized as of higher rank than that of Graduate in Pharmacy, but the three-year course for which it is awarded qualifies its recipients for many lines of pharmaceutical work that are not open to graduates from the two-year College Course.

7. The degrees of Pharmaceutical Chemist and Bachelor of Science in Pharmacy are conferred by the University, that of Graduate in Pharmacy by the College.

It may be said in conclusion that the present tendency is strongly toward a higher educational grade than that represented by the Graduate degree, and the degree of Graduate in Pharmacy is ceasing to represent a satisfactory professional preparation.

Through a faculty consisting of twenty-nine active professors and instructors, students in all classes derive the benefit not only of the most advanced methods, but of instruction in small groups or class sections, thus allowing the largest amount of individual attention.



## IMPORTANT ANNOUNCEMENTS

1. Beginning with the first of January, 1927, no student may matriculate in a pharmacy school in the State of New York, for a course of less than three years, leading to the degree of Graduate in Pharmacy.

2. It has been decided that no practical experience in drugstore or pharmacy will be required previous to such matriculation, although the requirements of the Board of Pharmacy as to such practical experience previous to the Board examinations, will continue unchanged.

3. In the interim, before the graduation of students from the three-year course, in 1930, our three-year University Course leading to the degree of Pharmaceutical Chemist will continue to exceed the conditions of the required three-year course for the Ph.G. degree.

4. Students matriculating for the Ph.C. course no longer receive their Ph.G. degree at the end of the second year, since the higher degree of Ph.C. is assumed to cover all the credits, rights and privileges of the lower course. Transfers from one course to the other cannot be made after the beginning of the work, except by special arrangement in each case.

5. The following important changes have been made in the subject matter of the University Course.

A. The work in Bacteriology has been increased from 45 to 90 hours, a part of the work in the histology of drugs having been transferred to the fourth year, to render this change possible.

B. A course of 90 hours in cryptogamic botany has been included in the course of the third year, in place of the course in vegetable taxonomy, which has been transferred to the fourth year.

6. With the inauguration of the three-year College Course, as above announced, the restricted accommodations for University students will probably necessitate a great reduction in the size of that class. Under these conditions, it is probable that more exacting requirements for admission will be established, and that the work of the course will be considerably extended.

7. With the coming session, although there can be no increase in student-attendance, four new instructors will be added to the Faculty, the special object being to provide for more individual attention during laboratory hours.

8. No student will be admitted more than two weeks after the date of opening of the session.

9. Beginning with the summer of 1926, no summer quiz courses will be given in any department, unless at least five students shall apply for membership in such class.

10. All applicants for admission to any of the courses given must present an acceptable certificate of health from the candidate's family physician or from the University Medical Officer. In case of doubt an examination by the University Medical Officer will be required. The proper blanks will be furnished on application to the Registrar of the college.

11. All matriculants for this session must pay at least one-third of the tuition fee for the year, on or before the 8th day of September, 1926, failing which their

places will be filled by others, and no part of this sum will be refunded subsequently in case of the discontinuance of their course.

12. Any student who has failed in a laboratory course must make up this deficiency during the summer session, and cannot be allowed laboratory space during the regular session of 1926-1927, except on payment of the full tuition fee for the year. To this rule there may be certain exceptions, in case the laboratory work cannot be done during the summer.

13. Students intending to compete for the Plaut Fellowship should carefully read the conditions stated on page 28 of this *Announcement*, and take early steps to qualify for such competition.

14. According to the present valuation of high school work by the New York State Education Department, that of each year is rated as 18 counts, instead of 15 as formerly. The equivalent of high school graduation, when secured otherwise than by such graduation, is therefore understood as being 72 Regents counts.

15. It is to be noted that Regent's examinations for the Pharmacy student qualifying certificate will be discontinued after the year 1927 (See page 19).

16. A new college journal, *The Messenger* has been established, and appears regularly as a monthly publication.

## ENTRANCE REQUIREMENTS

### COLLEGE COURSE

This is a course of two years (three years, beginning in 1927) each of thirty-two weeks, leading to the degree of Graduate in Pharmacy, conferred by the College, and qualifying the graduate to meet examinations for the position of Licensed Pharmacist in New York State and in several other States.

The admission of students to this course is conditional upon the limitations of available space. For several years past, the College has not been able to accommodate nearly all who have applied for admission. Although an increase of fifty per cent in our accommodations has been made, we still find ourselves compelled to turn away applicants. For the session of 1926-1927, we shall have accommodations for only 300 new candidates for the degree of Ph.G. All properly qualified applicants will be admitted in the order of their application, until only fifty vacancies remain. Thereafter, we shall select only the best qualified of those applying, to fill such vacancies.

For admission to this course, the student must be at least seventeen years of age, and must present a Qualifying Certificate for a Pharmacy Student, issued to him by the N. Y. State Education Department. This certificate, or the statement of the State Education Department that the student is entitled to it, must be filed on or before November 15. Those who have successfully pursued four years' study at a high school or other school of corresponding grade, recognized by the State Education Department, can secure the certificate by sending their credentials to the Examination Division, Education Department, Albany, N. Y., on a form provided for that purpose, together with a fee of one dollar. Those unable to present such credentials are required to pass examinations held by the Department ("Regents' Examinations") in any of the subjects

named in the following table which may be selected by the candidate, or in any other subjects in which examinations are given, the subjects so selected to give a total credit of at least seventy-two counts, as there indicated. These examinations are held in January, June and September, in Albany, New York, Buffalo, and Syracuse. All subjects taken in Regents' examinations to count toward the certificate must be passed at not less than 75 per cent.

Students entering on credentials from foreign countries where the language is other than English must pass an examination in English for foreigners *before being matriculated*.

*It is important to note* that these professional academic Regents examinations will be discontinued on January 1st, 1928. After that date it will be possible to earn credit toward a Pharmacy students certificate only by attendance at an approved day or evening high school.

Students who have attended private institutions should not fail to ascertain whether such institutions are approved by the Education Department. If not, their credentials will not be accepted, and they will be required to take the regular examinations of the Department. For information as to these examinations, the necessary fees, etc., consult the State Education Department, Albany, N. Y.

#### SUBJECTS OFFERED BY THE DEPARTMENT OF EDUCATION

##### *Ancient and Modern Languages*

12 Three-year English	10 Second-year German
4 Fourth-year English	10 Second-year French
10 Second-year Latin	10 Second-year Spanish
10 Second-year Greek	10 Second-year Italian

##### *Mathematics*

5 Elementary algebra	2 Inter. algebra
3 Advanced algebra	2 Solid geometry
5 Plane geometry	2 Plane trigonometry

##### *Science*

5 Physics	5 Biology
5 Chemistry	5 Physical geography

##### *History and Social Science*

5 Modern history I	2½ Economics
5 Modern history II	2½ Civics
5 American history	

##### *Commercial Subjects*

5 Bookkeeping I	5 Commercial arithmetic
5 Bookkeeping II	10 Shorthand

##### *Drawing*

2 Elementary representation	2 Elem. mechanical drawing
2 Intermediate drawing	

## THE UNIVERSITY COURSES

These are courses of full academic years (September to June) leading to graduation with the other departments of the University, and to the degree of Pharmaceutical Chemist, conferred by the University, at the end of the third year, and to that of Bachelor of Science in Pharmacy at the end of the fourth.

*Pharmaceutical Chemist Course*

For admission to this course, a student must be seventeen years of age, must have graduated from a high school within or outside of the State of New York that is accredited by the Education Department of this State, and must present a pharmacy student qualifying certificate from the Education Department of this State, based on 72 academic counts, equal to 15 Columbia units.

## PRESCRIBED SUBJECTS

ENGLISH	{ 1 (grammar and composition) . . . . .	1½ units
	{ 2 (literature) . . . . .	1½ units
MATHEMATICS	{ <i>ai</i> (algebra to quadratics) . . . . .	1 unit
	{ <i>c</i> (plane geometry) . . . . .	1 unit
one unit from the following:		
	Physics . . . . .	1 unit
	Chemistry . . . . .	1 unit
	Biology . . . . .	1 unit
	Mathematics <i>aii</i> (algebra through quadratics and beyond)	1 unit
ELECTIVE SUBJECTS	. . . . .	9 units
Elementary French . . . . .	2 units	
Elementary German . . . . .	2 units	
Elementary Greek . . . . .	2 units	
Elementary History . . . . .	1, 2, 3 or 4 units	
Elementary Italian . . . . .	2 units	
Elementary Latin . . . . .	2, 3, or 4 units	
Physics . . . . .	1 unit	
Elementary Spanish . . . . .	2 units	
Intermediate French . . . . .	1 unit	
Intermediate German . . . . .	1 unit	
Intermediate Spanish . . . . .	1 unit	
Intermediate Italian . . . . .	1 unit	
Advanced French . . . . .	1 unit	
Advanced German . . . . .	1 unit	
Advanced Spanish . . . . .	1 unit	
Advanced Greek . . . . .	1 unit	
Advanced Arithmetic . . . . .	1 unit	
Advanced Latin . . . . .	1 unit	
Advanced Mathematics . . . . .	½, 1 or 1½ units	
Biology . . . . .	1 unit	
Botany . . . . .	1 unit	
Chemistry . . . . .	1 unit	
Drawing . . . . .	1 unit	
Harmony . . . . .	1 unit	

Musical Appreciation . . . . .	1 unit
Physiography . . . . .	1 unit
Shopwork . . . . .	1 unit
Zoology . . . . .	1 unit
Second Year Hebrew . . . . .	2 units
Elementary Bookkeeping . . . . .	1 unit
Advanced Bookkeeping . . . . .	1 unit

### *Bachelor of Science in Pharmacy Course*

The requirements for admission to this course differ from those of the Pharmaceutical Chemist Course in the following particulars:

Course *iii*, quadratics and beyond, is prescribed, in addition to those above stated.

The candidate must be a graduate of an accredited high school of the State of New York, where the subjects outlined have been covered. Those not so qualifying must secure fifteen units at the entrance examinations conducted by Columbia University or the College Entrance Board. Graduates of high schools outside of the State of New York, may substitute for that examination, the June psychological tests of Columbia University, for the conditions of which the Director of Admissions of the University should be consulted.

Members of this class who are competing for the Plaut Fellowship must, before graduating, secure credit for one year of College work in a foreign language.

### METHOD OF INSTRUCTION

The instruction of each class during the first and second year College Courses occupies three days of the week, the alternate days being free for practical experience in the pharmacy. This arrangement provides a source of income, which is a necessity for many of the students of the College.

For the purpose of more fully elucidating the subjects presented in the lectures and laboratories and of familiarizing the students therewith, and as a test of attention and progress, provision is made for a complete series of recitations or quizzes by a corps of qualified instructors. The order of topics and the manner of their treatment at these recitations follow closely the courses of instruction given by the professors in the respective departments. In order that all the members of the class may be drilled as often and as thoroughly as possible, the classes are divided into sections, the instruction of each section being identical, but conducted at different hours.

In several departments each student receives daily, before the beginning of the work, a mimeographed copy of the exercises.

### GRADUATE IN PHARMACY—COLLEGE COURSE

This course, of two years, is designed to fit the graduate for meeting the requirements of the Board of Pharmacy of the State of New York, this being one of the few boards in the United States that will continue, until the year 1929, to examine candidates who have completed a course of two years.

## First Year

		Class Hours	Laboratory Hours	Point
MM 15-16-17-18	Botany	2½	3	9
MM 13-14	Physiology and Hygiene	2	0	4
MM 19-20	Posology	½	0	2
Chm. 1-2	General Physics	2	0	4
Chm. 3-4	Inorganic Chemistry	3½	0	7
Chm. 5-6	Analytical Chemistry	½	3	3½
Phr. 7-8	Theory of Pharmacy	4	0	8
Phr. 9-10	Practical Pharmacy	0	2	2
Phr. 11-12	Dispensing Pharmacy	0	1	1

## Second Year

		Class Hours	Laboratory Hours	Points
MM 59	Materia Medica	3	0	6
MM 60	Toxicology	1	0	2
MM 61-62	Pharmacognosy	0	3	3
Chm. 51-52	Organic Chemistry	4	0	8
Chm. 53-54	Analytical Chemistry	0	3	3
Phr. 55-56	Practical Pharmacy	3	2	8
Phr. 57-58	Dispensing Pharmacy	1	1	3
Phr. 63-64	Commercial Pharmacy and Pharmaceutical Jurisprudence	1½	1½	4½

## PHARMACEUTICAL CHEMIST—UNIVERSITY COURSE

This course, of three years, conforms to all the requirements of the American Conference of Pharmaceutical Faculties, as to conditions of admission and graduation, but comprises more hours of instruction, and includes additional subject matter, than pertain to that course. Under the statutes of New York, it is, until 1927, the only three year pharmacy course that can be given, and the degree of Pharmaceutical Chemist is the only one that can be awarded for it. In the meantime, the course is more comprehensive than that for the degree of Ph.G. and the degree is of higher rank.

## First Year

		Class Hours	Laboratory Hours	Point
MM 15-16-17-18	Botany	2½	3	9
MM 13-14	Physiology and Hygiene	2	0	4
MM 19-20	Posology	½	0	1
Chm. 1-2	General Physics	2	0	4
Chm. 101	Physics Laboratory	0	2	2
Chm. 3a-4a	Inorganic Chemistry	3½	0	7
Chm. 5-6	Analytical Chemistry	½	3	3½
Phr. 7-8	Theory of Pharmacy	4	0	8
Phr. 9-10	Practical Pharmacy	0	2	2
Phr. 11-12	Dispensing Pharmacy	0	1	1

## Second Year

		Class Hours	Laboratory Hours	Points
MM 59	Materia Medica	3	0	6
MM 60	Toxicology	1	0	2
MM 61-62	Pharmacognosy	0	3	3
Chm. 65-66	Inorganic Chemistry	4	0	8
<del>Chm. 51-52</del>	<del>Organic Chemistry</del>	<del>4</del>	<del>0</del>	<del>8</del>
Chm. 53-54	Analytical Chemistry	0	3	3
Phr. 55-56	Practical Pharmacy	3	2	8
Phr. 57-58	Dispensing Pharmacy	1	1	3 ✓
Phr. 63-64	Commercial Pharmacy and Phar- maceutical Jurisprudence	1½	1½	4½
Phr. 102	Advanced Pharmacy	1	1	3

## Third Year

		Class Hours	Laboratory Hours	Points
MM 117-118	Bacteriology	1	1½	3½
MM 205-206	Morphology and Taxonomy of Crypto- gams	1	2½	4½
Chm. 103-104	Industrial Chemistry	2	0	4
Chm. 105-106	Chemical Bibliography	1	0	2
Chm. 107-108	Analytical Chemistry	1	10	12
Phr. 109-110	Higher Pharmacy	3	5	11
Phr. 111-112	Dispensing Pharmacy	0	2	2

## Fourth Year

		Class Hours	Laboratory Hours	Points
MM 113-114	Applied Pharmacognosy	¾	5½	7
MM 115-116	Botanical Taxonomy	0	1½	1½
MM 155-156	Human Physiology	1	0	2
Chm. 157-158	Quantitative Analysis	1	8	10
Chm. 159-160	Food Analysis and Toxicology	1	8	10
Phr. 163-164	Higher Pharmacy	1½	7	10
Chm. 161-162	Biological Chemistry	1	0	2

## FEES

## MATRICULATION AND REGISTRATION FEES

For the session beginning September 1926 the Board of Trustees has adopted the following schedule of fees for students in attendance.

The Matriculation Fee (\$5.00) must be paid by each student at the time of his first registration. The matriculation fee is payable but once.

The Registration Fee (\$5.00) is payable at the time of all subsequent registrations for any year or in any of the prescribed courses.

The fee for students activities, first, second and third years is . . . . . \$10.00

## TUITION FEES

*College Course*

The tuition fee for each year of the College Course is.....\$200.00

*University Course*

The tuition fee for each of the first and second years of the University Course is.....\$200.00

For the extra first year Physics Laboratory and second year Pharmacy Laboratory instruction.....\$15.00

The tuition fee for the third year of the University Course is.....\$250.00

The tuition fee for the fourth year of the University Course is.....\$275.00

First-year students who fail to pass the examinations at the end of the course or at the supplementary examinations in the fall if they desire to repeat the first year's work must pay a registration fee of \$5.00 and a second tuition fee.

## LABORATORY BREAKAGE FEE

At the beginning of each term each student is required to deposit the sum of \$10, to cover the cost of apparatus broken by him during that term. At the close of the term such portion of this fee as has not been consumed by such breakage will be returned to him.

## SUMMER LABORATORY AND QUIZ COURSES

The fee for each full time subject of the Summer Quiz Course is.....\$15.00

For each Summer Laboratory Course.....\$25.00

The fee for a special lecture course in any single department of the regular College Course is.....\$35.00

The fee for a special laboratory course in any single department of the regular College Course is.....\$50.00

Evening Course fees, see page 41.

## EXAMINATION FEES

On or before April 4, 1927, all students in the first and second year classes must pay an examination fee of \$10.

Candidates for the degree of Pharmaceutical Chemist must pay on or before April 25, 1927, an examination fee of \$10.

Candidates for the degree of B.S. in Pharmacy must pay, on or before April 25 1927, an examination fee of \$15.

## PAYMENT OF FEES

A printed schedule of fees with the dates when due may be obtained in the Registrars' Office.

The matriculation or registration fee must be paid at the time of registration.

The session fee may be paid as indicated below, the student electing which plan he will accept.



All students registered in the first year class must, in order to complete their matriculation, make the first payment of their fees on or before September 8, 1926, instead of September 13, as noted below. Fees are *not* returnable under any circumstances.

A. Pay in full on or before September 13, 1926.

B. Pay one-half of the fee on or before September 13, 1926, and half on or before January 4, 1927; in this case, \$3 will be added to the first payment.

C. Pay a third of the fee on or before September 13, 1926, a third on or before December 1, 1926, and a third on or before February 14, 1927; in this case \$5 will be added to the first payment.

A student accepting plan B or C will, on failure to meet a payment, be liable to be debarred, from that date, from attendance.

The fees for the Summer Preparatory and Evening Courses are payable in advance.

All students, both regular and special, must pay their fees at the office of the College.

It is estimated that an expenditure of \$50 will cover the cost of the text-books and necessary apparatus required for the full two-year course.

#### REGULATIONS OF THE BOARD OF TRUSTEES

The rules and regulations stated in this Announcement and those posted on the Bulletin Boards, signed by the Chairman of an authorized committee, or by the Dean, will govern all students of this College until a new Announcement is issued.

#### AUTHORITY OF THE DEAN

The Dean is the executive officer of the Faculty. It is his duty, under the direction of the President, to enforce the rules of the Faculty and of the Board of Trustees and to administer discipline in the case of their violation.

#### REQUIREMENTS FOR ALL REGULAR STUDENTS

##### *Attendance*

Students are particularly requested to be in attendance at the commencement of the course, in order to obtain full benefit from the lectures. No student will be admitted more than two weeks after the opening of the term, and no member of the third and fourth year classes will be admitted later than one week after the opening, except by special permission of the Faculty.

Every student must attend during ninety per cent of the hours of instruction in each year, and during eighty per cent of those of each exercise. For being late twice at daily opening the student will be charged with one absence. For failure to comply with this condition, the student will forfeit the privilege of presenting himself for examination.

##### *Advancement in Classes*

Advancement from one class to the next requires that the student successfully pass an examination in all the subjects taught during the preceding year, the

passing mark being 75 per cent, although the Faculty may admit a student to the next class conditioned in a single subject. It is to be particularly noted that in deciding upon the qualifications of candidates, their term's work and their character as students will be given due consideration.

Those students who fail to pass these examinations—but *not those* who have failed, without excuse, to present themselves thereat—will be allowed to undergo a single supplementary examination to be held as announced on page 72, provided, however, that they did not fail in a majority of their subjects. Students failing in a majority of their subjects will be required to repeat their entire course, provided however, that such students may be refused re-matriculation if, in the judgment of the faculty, they are not qualified to be students of this College. A student who fails in a laboratory course must repeat such course successfully before being advanced to the higher class. This work must be done during the summer except in special cases.

As an aid to those students who are required to take a supplementary examination, summer quiz courses are held as per schedule on page 41. By a regulation of the State Education Department, students failing in more than one subject must make good the deficiency at the school where they so failed. Applicants for the supplementary examination must notify the Registrar on or before September 1, 1926.

Candidates for admission to advanced standing must either pass examinations in all the subjects of the preceding year or must produce evidence of having passed successfully examinations equal thereto.

#### REQUIREMENTS FOR GRADUATION

Every person upon whom a degree is conferred by the College or the University must be of good moral character, and must have complied with all requirements for graduation.

Those who fail to appear for examination (after having handed in their names with the examination fee), or who do not pass satisfactorily, will be allowed to present themselves at the following spring examination on paying an additional fee of \$10 and complying with all other requirements.

Such students may, if they prefer, be re-examined at any supplementary examination in September on payment of a fee of \$5.00 for each and every subject in which examined.

The fees for a third spring examination shall correspond with those stated above for the second examination.

Any student who shall have failed three times in three or more subjects at the final examinations for graduation, shall be required to repeat the entire work of the final year before being again admitted to examination. Any student failing three times in one or two subjects, shall be required to repeat the entire work of the final year in such subject or subjects before being again admitted to examination. Should the student again fail at the final examination and at the following supplementary examination, he will not be permitted to continue as a student, or to be examined again.

All students must obtain a rating of 75 per cent or higher in every department in which they may be examined. Therefore, a student may get the required num-

ber of total marks, yet fail of graduation because in one department he falls below the percentage required. Any student failing in one or more departments, but not in laboratory courses, may present himself for re-examination therein at the supplementary examination held in September, or at the next regular spring examination. If successful, he will be graduated without re-examination in the other departments. Should he so elect, he may be re-examined in all departments, in order to increase his general average. Failure in a laboratory course will necessitate the repeating of that course, which repetition must occur during the summer vacation, except in special cases. See schedule on page 41.

### PRIZES AND SCHOLARSHIPS

The College reserves the right to withhold the award of any scholarship or prize, if, in its opinion, no candidate has exhibited qualifications justifying the award.

#### THE HONOR ROLL

The twenty candidates securing the highest averages at the final examinations, constitute the Honor Roll, provided, however, that such candidates shall have attained a general average of not less than 90%. The diplomas of such students will bear a special gold seal of the College, bearing the inscription "With Honor."

#### TRUSTEES PRIZES

The Board of Trustees offers annually, to be presented at Commencement, three prizes of \$100 each, for competition at a special examination, by members of the graduating class who have obtained a position on the roll of honor at the regular examination for graduation. The prizes are awarded respectively for the best practical examinations in Chemistry, Pharmacy and Materia Medica. A certificate, stating the honor for which the prize was awarded, will also be given to each of the recipients of these prizes.

#### THE ALUMNI ASSOCIATION PRIZES

The Alumni Association of the College of Pharmacy offers three prizes to be presented at Commencement to the three students having the highest standing at graduation in the branches taught during the second year of the College course. A gold medal will be given for the best general examination, a silver medal for the second best examination, and a bronze medal for the third best examination.

Three prizes are awarded by the Alumni Association on "Alumni Day" to those members of the first-year College and University Classes who stand highest in laboratory work and who pass the best examinations in all branches of the first College year. The first prize is a Torsion balance, the second prize a copy of Arny, "*Principles of Pharmacy*," and the third prize a copy of Sadtler and Coblenz, "*Pharmaceutical Chemistry*."

#### THE MAX J. BREITENBACH PRIZE

A cash prize of \$200, accompanied by a certificate, is presented annually for the highest proficiency in the Junior (third year) University Class. This prize

is provided for in perpetuity from the interest of funds bequeathed to the College by the late Max J. Breitenbach for many years a devoted trustee.

#### THE KAPPA PSI PRIZE

The Gamma Chapter of the Kappa Psi Fraternity presents annually a gold medal to be awarded to that Pharmaceutical Chemist not receiving either the Breitenbach prize or the Seabury Scholarship who attains the highest standing throughout the three years of the course.

#### THE LILLIAN LEITERMAN PRIZE

Miss Lillian Leiterman, of the Class of 1911, offers a gold medal to that member of the College class who has maintained the highest standing among the women students throughout the entire College course.

#### THE J. LEON LASCOFF PRIZES

Trustee J. Leon Lascoff offers annually to the fourth and fifth students on the honor roll of the graduating class a year's membership in the American Pharmaceutical Association and to the sixth and seventh students on the honor roll a year's membership in any State Pharmaceutical Association.

#### TRUSTEES SCHOLARSHIPS

Two scholarships, entitling the winners to free tuition during the second year, are granted by the College for each session. These scholarships are awarded to the two members of the first-year College class who secure the highest averages at the regular spring examinations.

#### THE GEORGE J. SEABURY SCHOLARSHIP

This scholarship has been founded by Dr. Henry C. Lovis, in memory of his uncle, Mr. George J. Seabury, for many years a member and patron of the College. It provides for the tuition, during the Senior (fourth) year of the University course, of that member of this class who has maintained the highest standing during the three years, provided, however, that such student is eligible for the degree of B.S. in Phar., and shall not receive both this scholarship and the Max J. Breitenbach prize.

#### THE ISAAC PLAUT FELLOWSHIP

This Fellowship for the encouragement of graduate study and original research was founded by Mr. Albert Plaut, in memory of his father, Isaac Plaut.

Candidates for this Fellowship must have secured the degree of B.S. in Pharmacy at this school, and must also possess credit for a year's study of a foreign language, equivalent to that of the first year at Columbia College.

It provides for a year of study at a European school or university by that Bachelor of Science in Pharmacy of this College who shall have shown during his full course of study here the greatest taste and aptitude for original investigation. Should no member of a class be deemed worthy of the award, it will be withheld.

The Fellow shall be appointed by the Council of the University upon the nomination of the Trustees of the College of Pharmacy. He shall attend a foreign institution to be selected by himself and approved by the Faculty of the College of Pharmacy, and shall pursue a course of study approved by the Faculty. At the close of his incumbency he shall present to the Faculty a written report of his work.

The Fellowship payment shall be made in three equal instalments, one on June 15, one on November 1, and one on March 1, provided that the Fellow continues faithfully to pursue the work undertaken. In case of failure so to do, he shall forfeit all further privileges and emoluments conferred upon him by his appointment to the Fellowship, and the Trustees of the College of Pharmacy may declare the Fellowship vacant.

N.B.—Competition for the Kappa Psi Prize, the Seabury Scholarship and the Plaut Fellowship is open only to those students who take their entire course at this College.

#### THE E. R. SQUIBB PRIZE

This is an annual cash prize of \$100., founded by Messrs. E. R. Squibb & Sons, in memory of Dr. E. R. Squibb. It is awarded to that graduate in Pharmacy who exhibits the greatest proficiency in Analytical Chemistry during his second year, as determined by the laboratory records.

#### THE LOUIS DOHME PRIZE

This is an annual cash prize of \$100., founded by Messrs. Sharp & Dohme, in memory of Mr. Louis Dohme. It is awarded to that graduate in Pharmacy who exhibits the best practical knowledge of the drugs of the United States Pharmacopœia and National Formulary, as determined by the laboratory records and final examinations.

#### THE JOSEPH WEINSTEIN PRIZE

This prize consists of a compound microscope and is established by the New York Retail Druggists' Association, in memory of Dr. Joseph Weinstein. It is awarded to that graduate in Pharmacy who has exhibited the greatest proficiency in Analytical Chemistry during the two years, as determined by the laboratory records and the final examination, and who has not secured any other prize.

#### THE ITALIAN PHARMACEUTICAL ASSOCIATION PRIZE

This Association offers annually a gold medal to the member of the graduating class who has obtained the highest general average in practical laboratory work during the second year.

#### THE LEHN AND FINK PRIZE

This prize consists of a gold medal, offered by Messrs. Lehn and Fink, of New York City, for the graduate attaining the highest standing at the examinations in Pharmacy.

## THE WESTCHESTER COUNTY PHARMACEUTICAL ASSOCIATION PRIZE

This Association offers annually a gold medal to that member of the graduating class who has attained the highest general average in practical laboratory work, during both years, in the Department of Pharmacy.

## THE GERMAN APOTHECARY'S ASSOCIATION PRIZE

In commemoration of its foundation in the year 1851, the German Apothecary's Association offers, annually, a gold medal to be awarded to that member of the graduating class who has exhibited the greatest proficiency in the compounding of prescriptions in the senior year.

## THE OLSHANSKY MEMORIAL MEDAL

This is a gold medal, founded by the students of this school in attendance upon the session of 1923-1924, in memory of their beloved instructor, Jacob Calman Olshansky, whose death occurred during that academic year. This medal is to be awarded annually to that student who has attained the highest average in his class in the subject of Dispensing Pharmacy.

## OUTLINE OF COURSES

### CHEMISTRY

**Chemistry 1-2—General Physics.** Lectures and recitations, 2 hours, 4 points. Professor SCHAEFER and instructors.

This course of lectures extends throughout the entire term and embraces the general and special properties of matter, mechanics, acoustics, heat, light, magnetism, and electricity. The course serves as a foundation and systematic introduction to the study of the chemical elements and their compounds, and to the subjects of chemistry and pharmacy. Special attention is devoted to such subdivisions as have a more direct bearing upon medicine.

In the University Course of 1926-1927 the lectures and recitations will not include the more advanced consideration of light, electricity and the structure of the atom. These will be deferred until the sophomore year.

The lectures are abundantly illustrated with experiments, the College possessing a fine set of physical apparatus of the latest construction.

Text-books: Sadtler and Coblenz, *Pharmaceutical Chemistry*, fifth edition; Stewart, *College Physics*.

**Chemistry 101—Practical Physics.** Laboratory course,  $3\frac{1}{2}$  hours, 2 points. Professor SCHAEFER and instructor. *during one ses*

This work is taken by students of the freshman year, University class, who are assigned to sections. In order to keep these sections as small as possible, four such groups have been provided for. The course consists of thirteen half-day periods scheduled as follows:

#### Group

- P. 1 9-12:30 Mondays, Sept. 27, 1926 to Jan. 3, 1927, inc.  
P. 2 9-12:30 Mondays, Jan. 10, 1927 to April 4, 1927, inc.  
P. 3 9-12:30 Wednesdays, Jan. 12, 1927 to April 6, 1927, inc.

This work consists of experiments in fundamental physical measurements followed by special work in heat, light, sound and electricity. The final exercises of the course will be specialized to suit the future need of each individual student, whether as pharmacist, physician or food chemist. The laboratory is equipped not only with apparatus for routine exercised, but has the appliances necessary for work in colorimetry, spectroscopy, refraction, calorimetry and electro-chemistry. *During half yr*

**Chemistry 3-4—General Inorganic Chemistry.** (For First Year College Students). Lectures and recitations,  $3\frac{1}{2}$  hours, 7 points. Professors ARNY and SCHAEFER and instructors.

This course begins with a consideration of fundamental principles, and an outline of chemical theory, embracing the subjects of atoms, molecules, nomenclature, notation, etc., and continues with explanations of the laws of chemical combination, and rules governing the formation and nomenclature of acids, bases, and salts. Exercises in writing and calculating chemical equations are given, followed by problems in pharmaceutical chemistry. The non-metallic elements are afterward taken up, with their various compounds, including the inorganic acids. The metals are then taken up in detail, with the various salts which are of importance in chemistry and pharmacy, together with the pharmaceutical preparations into which they enter. In this connection the various pharmacopœial tests of identity and the subject of impurities and their detection receive special attention. All typical methods for the preparation of inorganic and organic salts are explained. Practical exercises in chemical equations are given and the student is drilled in the calculations necessary in the preparation of pharmaceutical chemicals. This portion of the course is treated from the standpoint of the pharmaceutical chemist, and involves a consideration of all the official and important pharmaceutical chemical preparation and compounds derived therefrom.

Text-book: Sadtler and Coblenz, *Pharmaceutical Chemistry*, fifth edition; U. S. *Pharmacopœia*.

**Chemistry 3a-4a—General Inorganic Chemistry** (for first year University students). Lectures and recitations  $3\frac{1}{2}$  hours, 7 points. Professors ARNY, and SCHAEFER and instructors.

This course is placed upon the basis of university chemical training, careful attention being given to the newer theories concerning valence, chemical equilibrium and oxidation and reduction.

On the side of descriptive chemistry, the non-metals from hydrogen through nitrogen are discussed with particular reference to the isolation of these elements and the preparation of their compounds in modern chemical technology; industrial processes being illustrated by use of a projection lantern.

Text-book: Deming, *General Chemistry*, second edition.

**Chemistry 5-6—Analytical Chemistry.** Laboratory and recitations.  $3\frac{1}{2}$  hours,  $3\frac{1}{2}$  points. Professors HOSTMANN and MACADAMS and instructors.

The course in analytical chemistry consists of laboratory instruction and is attended by the class in sections. Each student is provided with the necessary equipment, and is required to perform all the operations involved in qualitative chemical analysis. The uses of apparatus, the actions of reagents, and the proper manner of bringing about chemical reactions are illustrated and explained. On account of the fundamental importance to the true understanding of the subject the simple laws governing chemical action in solution and the formation of precipitates, the nature of solution, etc., are explained to the student. At first, and under the guidance of the teacher, the characteristic reactions of the basic components are studied in solution, or in the solid at a high temperature. The phenomena observed are interpreted and discussed, and the conclusions recorded. Later, the reactions are represented by equations. The value of grouping is utilized and separations and identifications of group members are performed. Finally, all facts acquired by direct observation are brought together in the systematic procedure for analysis of mixtures. In this recapitulation, individual effort is stimulated by independent work on samples of unlike composition.

Text-book: Hostmann and McAdams, *Laboratory Manual of Analytical Chemistry*.

**Chemistry 51-52—Pharmaceutical and Organic Chemistry** (for second year college students.) Lectures and recitations, 4 hours, 8 points. Professors ARNY and SCHAEFER and instructors.

In the lecture course, special care is taken to keep the student instructed in the new and constantly increasing applications of this science in the art of pharmacy and medicine. The preparation of the more common organic chemicals is fully treated, and the possibilities of advances under modern methods of research are presented to the student as they are reported. This department of modern pharmaceutical education is becoming more important each year, and no pains are spared to keep the instruction in Organic Chemistry fully up to the demands of the times.

All the official and the more important unofficial organic pharmaceutical chemicals and medicinal products, notably the newer synthetic remedies, are taken up, explained in detail, and classified according to their position in the various organic groups. By this method of classification the subject of organic pharmaceutical chemistry is presented in the same sequence as that of general organic chemistry.

Text-book: Sadtler and Coblenz, *Pharmaceutical Chemistry*, fifth edition; *U. S. Pharmacopœia*.

**Chemistry 53-54—Analytical Chemistry.** Laboratory course, 3 hours, 3 points. Professors HOSTMANN and MACADAMS and instructors.

The early part of the second-year course is devoted to completing the instruction in qualitative analysis. The discussion of the simpler fundamental laws governing chemical and physical changes in solution, begun in the first year, are followed to conclusion. The preliminary testing and preparation of a sample for analysis, involving solution in solvents other than water, and the procedure for analysis of substances insoluble in water and acids, are studied and practiced. The greater part of the time is devoted to the study of the acidic components.

*Quantitative Analysis.*—Instruction in quantitative analysis is then introduced. This training is intended to enable the pharmacist to determine the purity of medicinal chemicals and to find



the percentage strength of preparations. Volumetric analysis being simple, rapid and accurate for many medicinal substances, receives special consideration. As in the first year, all reactions are discussed and the changes involved in them are represented by equations. The quantitative significance of chemical changes is emphasized, derivation of equivalent quantities is discussed and the use of empirical solutions is practiced. Accurate weighing and measuring are insisted on. The student is obliged to perform careful and accurate determinations of the various components in samples furnished him, and after checking his results, to render an extensive report.

*Drug Assaying.*—The instruction in quantitative analysis is extended to the determination of the amounts of the active or principal constituents of drugs and galenicals. Since in the potent drugs and their preparations the quantities of the active constituents are very small, the sources of error in assaying them must be reduced to a minimum. The treatment that must be carried out for their isolation requires much care and skill in manipulation. It is for these reasons that this work, of necessity, falls in the last part of the course, when the student shall have been sufficiently trained to pursue the work intelligently and skillfully.

Text-books: Hostmann, *Volumetric Analysis*; Hostmann, *Qualitative Chemical Analysis*; U. S. Pharmacopœia.

**Chemistry 65-66—Inorganic Chemistry** (for University Sophomores). Lectures and recitations, 4 hours, 8 points. Professors ARNY and SCHAEFER and instructors.

This course is a continuation of chemistry—and will be devoted to a consideration of the non-metallic and metallic elements and their compounds. The course will open with a discussion of ionization and throughout the course, all of the more important principles of theoretical inorganic chemistry will be discussed. In descriptive chemistry, the course will begin with phosphorus and its preparations and during the year the remaining non-metallic elements and all of the more important metallic elements will be discussed from the standpoint of modern industrial chemistry.

Text-book: Sadtler and Coblenz, *Pharmaceutical Chemistry*, fifth edition.

**Chemistry 103-104—Industrial Chemistry.** Lectures and recitations, 2 hours, 4 points. Professors ARNY and SCHAEFER.

This course, supplementing the lectures on inorganic and organic chemistry of the first and second year, considers such inorganic industries as acid, alkali, cement, fertilizer and glass manufacture and such industries based on organic chemistry as fermentation and alcoholic products, wood distillation, fats and soap making, petroleum, sugar and starch products.

Text-book: Thorp, *Industrial Chemistry*, third edition.

**Chemistry 105-106—Chemical and General Bibliography.** Lectures and conferences, 1 hour, 2 points. Professors ARNY and SCHAEFER.

This course will consist of lectures on the source books of chemistry, pharmacy, botany and cognate sciences and on the periodical literature on the same subjects. At the conferences, special themes will be assigned to each student for research during spare hours.

**Chemistry 107-108—Analytical Chemistry and Urine Analysis.** Laboratory, 10 hours, lectures 1 hour, 12 points. Professor HOSTMANN and instructors.

*Lectures*—34 hours. During part of the time there will be discussed the "general tests" of the Pharmacopœia, viz. "Determination of Ash and Non-Volatile Matter," "Iodine Absorption Value," "Saponification Value," "Acid Number of Resins," "Ether Soluble Matter," "Proximate Assays," "Melting Points," "Boiling Points," "Congealing Points," "Solubilities" and "Gasometric Estimations."

The greater part of the time will be devoted to the discussion of the practical application of the modern theories of physical chemistry to analytical processes and methods.

*Laboratory Instruction*—330 hours. The first period, comprising 100 hours, will be devoted principally to qualitative work. Students will be supplied with pure and adulterated chemicals. Tests of purity and identity will be performed upon the following: chloroform, ether, ethyl acetate, phenol, glycerol, alcohol, amyl alcohol, cresol, creosote, acetanilid, chloral, paraldehyde, formaldehyde, acetphenetidin, salicylic acid, acetosalicylic acid and such others as time will permit.

During the second period of 100 hours, gravimetric and volumetric methods will be studied.

The student will prepare normal acid and alkali solutions. The former will be standardized with barium chloride and silver nitrate, the latter with potassium bitartrate, etc. The finished solutions will then be run against each other. Following upon this, the student will prepare iodine, potassium permanganate, sodium thiosulphate, etc., volumetric solutions. After standardizing same, he will use them in volumetric assays not covered during the second year. The gasometric assays of ethyl nitrite and amyl nitrite as well as the assay of volatile oils will then be taken up and will extend into the third period of 100 hours which will be principally devoted to the proximate assays of the U.S.P. and of galenicals.

The final period of 30 hours will be devoted to the analysis of urine. In addition to the routine qualitative and quantitative tests, the student will receive instruction in the principles and use of colorimeters and polarimeters.

Text-books: Hawk, *Physiological Chemistry*; U. S. *Pharmacopœia*; Stieglitz, *Qualitative Chemical Analysis*.

**Chemistry 157-158—Inorganic Quantitative Analysis.** Lectures 1 hour, laboratory, 8 hours, 10 points. Professor HOSTMANN and instructors.

The aim of the fourth-year work in Analytical Chemistry is to carry forward the instruction in chemical analysis to such a point that the student may be able to execute the more important sanitary, chemical, and pharmaceutical analyses.

The object of analytical chemistry is twofold, viz.: qualitative and quantitative. During the first year the detection of the component elements of compounds of unknown composition are studied, while the work of the second and third years applies to determination of the relative proportional amounts of the components of the various compounds studied, chiefly by the aid of volumetric methods, leaving the more difficult and complex processes of gravimetric analysis to be taken up in the fourth year.

The student must possess the theoretical knowledge necessary to enable him to solve chemical equations, and to calculate the composition of substances from their formulæ and *vice versa*.

The work will consist chiefly of gravimetric determinations, but will perforce include the testing, adjusting and calibrating of delicate balances and other apparatus.

Text-books: Treadwell and Hall, *Quantitative Analysis*, sixth edition. Reference-book, Fresenius, *Quantitative Analysis*.

**Chemistry 159-160—Food Analysis and Toxicology.** Lectures 1 hour, laboratory 8 hours, 10 points. Professors ARNY and SCHAEFER and instructor.

In order to give every advantage to the instruction in this department during the fourth year, the College has provided very complete apparatus, which supplies the very best facilities that modern science affords.

The work in this department will cover the following courses:

1. Analysis of various foodstuffs, including milk, butter, flavoring extracts, etc.
2. Chemical and sanitary examination of water.
3. Isolation and detection of organic and inorganic poisons.

In addition to the laboratory work just outlined there will be a lecture course of thirty hours extending through the entire year, describing the various chemical methods of food examination and explaining the principles underlying the more complex physical instruments employed by the students in their laboratory course.

Text-books: Leach, *Food Analysis*; Autenrieth-Warren, *Detection of Poisons*; Mason, *Examination of Water*.

Reference-Book: Allen, *Commercial Analysis*.

**Chemistry 161-162—Biological Chemistry.** Lectures 1 hour, 2 points. Mr. KARSHAN.

The instruction in inorganic and organic analysis relates to the examination of substances disconnected from the living body, but the competent analyst must be prepared to consider and act upon a knowledge of the natural changes which substances undergo when absorbed into the living body, as well as the natural products there originating.

## MATERIA MEDICA

**Materia Medica 13-14—Human Physiology and Hygiene.** Lectures and recitations, 2 hours each, 4 points. Professors RUSEY, HART, and TAUB and instructors.

In addition to the skill in Pharmacognosy required for the selection of drugs, the educated pharmacist is required to possess some general information concerning the properties and uses of the materials which he is engaged in handling and dispensing; that is, of the general classification of medicines. As such classification depends directly upon their physiological properties, a limited and specialized course of instruction in Human Physiology is provided.

The method consists in so arranging the order of subjects that the student shall be led from the very first lesson to see the manner in which disordered bodily functions may be restored to a healthy condition by the action of medicines, and leads to the immediate classification of the more important remedies, in connection with the study of the organs or systems to the functions of which they apply. While this method gives an accurate knowledge of the facts involved, it permits of the exclusion of a large portion of the subject of Physiology, and reduces to a minimum the amount of time expended in acquiring such a knowledge of this department of Materia Medica as is properly required of the practising pharmacist.

Text-book: Bachman and Bliss, *Essentials of Physiology*; Howell, *Physiology*.

**Materia Medica 15-16—Botany.** Lectures and recitations. 2 hours, 4 points. Laboratory, 1½ hours, 1½ points. Professors RUSBY, HART and TAUB and instructors.

The object of this course is to prepare the student for an understanding of that part of Materia Medica which relates to vegetable drugs. In the limited time allotted to this study, it is impossible to pursue it in all its departments, and attention is concentrated upon such instruction as will fit the student for professional work in pharmacy. The instruction embraces the morphology of the higher plants, from which nearly all of our vegetable drugs are derived, the terms used in official description, systems of classification, botanical nomenclature, and the relations of the lower to the higher plants.

The lectures are illustrated by large colored charts, and each student is furnished with cards bearing mounted specimens.

For the use of the instructor in the Quiz Room, the Alumni Association has provided an elaborate series of papier-mache models arranged to illustrate structure and dissection.

Text-book: Rusby, *Manual of Botany*.

**Materia Medica 17-18—Botany Laboratory.** Lectures ½ hour. Laboratory, 3 hours, 4 points. Professors BALLARD, HART and TAUB and instructors.

*Gross Botany.*—Pharmacognosy, while itself not a science, may be regarded as the art of applying scientific knowledge to the examination of drugs. The theoretical and practical training of the lecture and recitation room is designed to fit the student for such botanical observations as can ordinarily be made with the naked eye.

To enable him to extend these observations by the use of the simple or dissecting and the compound microscope, in preparation for the study of Pharmacognosy in the following year, a course of laboratory instruction is provided. This portion of the work is under the direction of Professor Hart, and consists in thoroughly training the students in the use of the simple microscope, and in teaching the structure of all parts of the plant which can be studied with that instrument.

The material for these studies is collected during the summer season, and carefully selected with a view to best illustrating the points brought out in the lecture-room.

*Vegetable Histology.*—As ability to properly use a microscope is the foundation of success in all branches of microscopy, first attention is given to a consideration of the parts of the instrument. The uses of the various types of objectives, oculars, illuminating apparatus and mechanical accessories are explained and demonstrated. The details of sectioning, embedding, staining and mounting specimens are illustrated by demonstrations, and at least part of the work is performed by the student.

The course includes the study of plant tissues and the various types of cell contents. A physiological grouping of the tissues is followed by detailed study of the forms, modifications, locations, functions and differences in chemical constitution of the cellular elements concerned in protection, support, absorption, transportation, synthesis and storage. The organic and inorganic cell contents are classified; details of their synthesis are considered and the more commonly used microchemical tests are demonstrated. This work is followed by a detailed study of the arrangement of cells and disposition of cell contents in the various parts and organs of the plant. Each student prepares a set of specimens for use in the course and is required to follow the lecture explanations by personal observation and drawings illustrating the topics considered at each session.

Text-books: Ballard, *Elements of Vegetable Histology*; Ballard & Hart, *Laboratory Manual*.

**Materia Medica 19-20—Posology.** Recitations,  $\frac{1}{2}$  hour, 1 point. Professor TAUB.

The practice in some states of issuing licenses as Assistants to those who have not completed their pharmacy course renders it necessary that the more important facts regarding dosage and danger of poisoning should be taught in the first year course. These recitations are designed to meet this requirement.

**Materia Medica 59—Materia Medica.** Lectures and recitations, 3 hours, 6 points. Professors RUSBY, HART and TAUB and instructors.

This course includes instruction in both the inorganic and organic divisions of drugs.

**ORGANIC DIVISION.**—In these lectures, the drugs are arranged in the order of their botanical relationship, there being a general correspondence between such relationship as, represented in the various families and subfamilies, and their medicinal properties. The natural order recognized in the classification of Engler and Prantl (*Pflanzen-familien*) is followed.

Some general remarks upon the families, with special reference to their medicinal constituents and properties, will always precede the consideration of the species belonging thereto. In studying the individual drugs, the order of topics is as follows: The definition given by the Pharmacopœia, habit, habitat, range, collection, preparation and commerce, important constituents, medicinal action, uses, and doses. All instruction pertaining to description, structure, identification, substitution and adulteration is referred to the extensive course in Pharmacognosy.

**INORGANIC DIVISION.**—Many of the inorganic drugs are so closely related in properties and uses to others in the organic division that their consideration in connection therewith is deemed of advantage to the student. Those members which form classes distinct from those of the organic division will be afterward considered, and their classification will correspond in a general way with that found in Wood, *Therapeutics*. All facts concerning the chemistry and pharmacy of these drugs will be omitted, except when necessary to explain changes of such a nature as to modify their medicinal effects.

Text-books: Culbreth, *Materia Medica and Pharmacology* (for University students, Gould, *Pocket Medical Dictionary*).

**Materia Medica 60—Toxicology.** Lectures and recitations. 1 hour, 2 points. Professors RUSBY, HART and TAUB and instructors.

The classification of poisons is based upon the Physiological Action of Medicines, taught during the Junior year, and is synoptically presented at the beginning of the course in *Materia Medica*. The Toxicology of the individual drugs is then taken up in detail in connection with their physiological action and medicinal uses. Experience has shown that by this method the modes of occurrence of poisoning accidents, the poisonous doses, the action of poisons and their rational treatment, are all made more intelligible to the student, and are better impressed upon his memory, than by treating the subject as entirely disconnected from that of *Materia Medica*.

Text-book: Brundage, *Manual of Toxicology*.

**Materia Medica 61—Macroscopic Pharmacognosy.** Laboratory, <sup>3</sup> $1\frac{1}{2}$  hours,  $1\frac{1}{2}$  points. Professors BALLARD, HART and TAUB and instructors.

This course comprises laboratory instruction in the classification, identification and description

of the vegetable drugs of the U. S. Pharmacopœia and National Formulary. The drugs and medicinal products of vegetable origin are grouped according to the parts of the plant from which they are derived and further classified on the basis of medicinal constituents. Each drug receives separate attention in the laboratory and the following details are considered—titles under which the drug is known; botanical, geographical and commercial sources; official description, definition and prevailing standards; liability to adulteration or substitution; preparation for market and proper means of preservation or storage.

Each student receives a typical specimen of the drug under consideration and must retain the same for future reference. At the completion of the course each student possesses a collection of the official crude drugs and many non-official articles of commercial or technical importance as his personal property. Proficiency in the identification of the drugs studied is determined by practical examinations at short intervals during the term. Botany (Course *MM. 15-16* or its equivalent) is prerequisite to a proper understanding of the work in this course.

Text-book: Squibbs, *Atlas of the Official Drugs*.

**Materia Medica 62—Microscopic Pharmacognosy.** Laboratory,  $1\frac{1}{2}$  3 hours,  $1\frac{1}{2}$  points. Professors BALLARD, HART and TAUB and instructors.

The preliminary work of this course will consist of a brief review of the cellular elements and cell contents in the parts of plants used as drugs or foods. In this manner the work in vegetable histology of the first year (Course *MM. 17-18*) is coordinated to the more detailed study of microscopical pharmacognosy. Powders prepared from drugs representing different parts of the plant will be used as material for study. By utilization of the sections prepared in the first year it will be possible, in many instances, for the student to compare the section with the powder and thus observe the disposition of the cellular elements in situ and the changes in appearance incidental to powdering. The number of specimens studied is necessarily limited by the amount of time which can be given to the work but the subject matter of the course is so arranged that representative rather than extraordinary types are considered. The student is expected to construct and use analytical keys in the identification of the powdered materials examined. Progress in course is determined by a series of practical examinations at short intervals throughout the year and the student must record his observations by drawings made from his specimens.

Text-books: Ballard, *Elements of Vegetable Histology*; Ballard & Hart, *Laboratory Manual*.

**Materia Medica 113-114—Applied Pharmacognosy.** Lecture  $\frac{3}{4}$  hour. Laboratory  $5\frac{1}{2}$  hours, 7 points. Professors BALLARD and HART.

The object of this course is instruction in the methods of applying the principles of microscopy to practical problems apt to be encountered in the average commercial laboratory. The introductory work will consist of a consideration of the general methods employed in microanalysis and the uses of the more common accessories, including polarizing apparatus, measuring apparatus, counting chambers, dark field and vertical illumination. Each student is required to prepare sections of the various types of vegetable materials using these sections for the demonstration of staining procedures and microchemical reactions. This will be followed by practical and individual work in the qualitative determination of typical drugs and mixtures to which microanalytical methods are applicable. During this work it is expected that the student will avail himself of the library facilities of the School and freely use the economic drug and food collections of the laboratory for reference and comparison purposes. The aim is to duplicate actual commercial laboratory conditions and to train the worker to depend upon himself. The materials used for teaching purposes will, as far as possible, be commercial products which have been analyzed by microscopical methods.

Prerequisite—Botany 15-16-17-18; Pharmacognosy 61-62. References: E. R. Squibb Co., *Atlas of the Official Drugs*; Kraemer, *Scientific and Applied Pharmacognosy*; Winton, *Microscopy of Vegetable Foods*; Schneider, *Powdered Drugs*, National Standard Dispensatory.

**Materia Medica 115-116—Botanical Taxonomy.** Laboratory course  $1\frac{1}{2}$  hours,  $1\frac{1}{2}$  points. Professor RUSBY.

A good working knowledge of the terms used in descriptive botany, such as can be gained by a study of Rusby, *Manual of Botany*, will be found a sufficient preparation for this course.

The object of this course is to present a general idea of the system of flowering plants, and of

their classification and determination by the use of descriptive works. The work consists of the laboratory study of types of the principal families, especially those rich in medicinal and poisonous species.

Text-book: Rusby, *Manual of Botany*.

References: Bentham and Hooker, *General Plantarum*; Engler and Prantl, *Pflanzenfamilien*.

**Materia Medica 117-118—Bacteriology.** Lectures 1 hour, 2 points, laboratory 2½ hours, 4½ points. Professors HART and TAUB and instructors.

The Bacteriological Laboratory in our new building has been fully equipped, and practical work in this important field is taken up. The general principles of the science are taught, and the students cultivate, stain, and study the more important microorganisms. Laboratory methods in the bacterial examination of water, air, milk, ice, sputum and excreta are given, and methods of disinfection and sterilization are practically demonstrated.

Park and Williams, *Pathogenic Micro-organisms*.

**Materia Medica 155-156—Human Physiology.** Text-book and Conferences 1 hour, 2 points. Miss HOPPING.

This course consists of a series of discussions, based on assigned reading, occupying 1 hour weekly throughout the term.

Text-book: Howell, *Physiology*.

**MM. 205-206—Morphology and Taxonomy of Cryptogams.** Lectures 2 points, laboratory 2½ points. Professors BALLARD and HART.

This course comprises lectures, recitations and laboratory exercises in the morphology, phylogeny and taxonomy of the Thallophyta, Bryophyta and Pteridophyta. One or more representatives of the different orders of each class and subclass will be studied in detail.

Prerequisite—Courses *MM. 15, 17, 18* or equivalent courses in botany and vegetable histology.

Texts: Coulter, Barnes, Cowles, *Text-Book of Botany*, Vol. 1; Strassburger, *Text-Book of Botany*.

**Materia Medica 207-208—Chemical Microscopy.** Laboratory course, 2 hours, 2 points. Professor BALLARD.

#### PHARMACY

**Pharmacy 7-8—Theory of Pharmacy (including Pharmaceutical Latin and Arithmetic).** Lectures 3 hours, Recitation 1 hour. Professors DIEKMAN, WIMMER and BROWN and instructors. 8 points.

#### Theory of Pharmacy

The object of this course is to teach the student to put into practice in the laboratory the principles of pharmaceutical manipulation taught in the lecture room. While the student's work is individual, it is carefully supervised by professors and instructors, so that errors in conception and inaccuracies in method can be promptly corrected.

In the laboratory course the students reach a point where each is competent to prepare such pharmaceutical preparations as are in common use.

The course is designed to present, in as brief a manner as is consistent with thoroughness, those principles of Latin etymology and construction which are essential to an intelligent understanding and use of the terminology of Pharmacy.

As the time which can be devoted to this work in the present curriculum of schools of pharmacy is necessarily limited, only such parts of Latin grammar will be taken up as are required for the correct use of nomenclature of the materia medica, and prescription writing.

The nomenclature of the United States Pharmacopœia and the National Formulary will be especially considered, and if time permits, that of the principal foreign Pharmacopœias will be taken up. The subject of Latin abbreviations, as used by the physician in prescription writing, will be specially treated.

Text-books: *U. S. Pharmacopœia; National Formulary*, 4th edition; Sturmer, *Pharmaceutical Latin*; H. C. Muldoon, *Pharmaceutical Latin*; Sturmer, *Pharmaceutical Arithmetic*.

**Pharmacy 9-10—Practical Pharmacy.** Laboratory course, 2 hours, 2 points. Professors DIEKMAN, WIMMER and BROWN, and instructors.

Text-book: Diekman and Wimmer, *Pharmacy Laboratory Notes*.

**Pharmacy 11-12—Dispensing Pharmacy.** Laboratory course. 1 hour, 1 point. Professors DIEKMAN and WIMMER and BROWN, and instructors.

This course embraces the methods of compounding the various types of prescriptions, from the simplest to those requiring much technical knowledge and skill. It includes theoretical instruction and training in manual work. The habit of neatness, and, above all, of accuracy, acquired by the student is of direct and immediate advantage to him in rendering his services more valuable to his employer.

Text-book: Diekman and Wimmer, *Dispensing Laboratory Notes*.

**Pharmacy 55-56—Practical Pharmacy.** Lectures 2 hours, recitations, 1 hour, laboratory course, 2 hours, 8 points. Professors DIEKMAN, WIMMER and BROWN, and instructors.

The lectures of this course serve the double purpose of furnishing a theoretical basis for the work of the laboratory and of supplementing the instruction given in the dispensing laboratory. All classes of galenical preparations are taken up and their methods of preparation not only collectively, but individually, are thoroughly considered. The common impurities of each and methods for their detection, means of preservation and incompatibilities are also considered. Particular attention is paid to the latter part of this subject, not only as regards the galenical preparations, but also the various inorganic salts and newer remedies. The subject of Homœopathic Dispensing receives its due share of attention.

The laboratory work follows closely the plan of the lectures, the student ascertaining by appropriate tests the identity and purity of various compounds, and preparing many inorganic and organic pharmaceutical preparations and salts, such as the liquors, chemical syrups, inorganic salts, organic compounds, etc.

Amply facilities are provided for students engaged in studying pharmaceutical manufacturing on a large scale, and for those engaged in assaying and carrying on plant analysis, etc. A properly equipped balance room is on the laboratory floor for the use of students engaged in quantitative work.

**Pharmacy 57-58—Dispensing Pharmacy.** Recitations, 1 hour, laboratory course, 1 hour, 3 points. Professors DIEKMAN, WIMMER and BROWN and instructors.

The work of the *Dispensing Laboratory* deals more especially with prescription difficulties, and embraces the all-important subject of chemical, pharmaceutical and therapeutical incompatibilities—those which may, as well as those which frequently do occur. The continual introduction of new remedies renders the subject of prescription incompatibilities a never-ending study, and it is the aim of this department to qualify its graduates for keeping pace with discovery.

Text-books: Ruddiman, *Incompatibles in Prescriptions*; Diekman and Wimmer, *Pharmacy Notes*.

**Pharmacy 63—Commercial Pharmacy.** 2½ points. Lectures 1½ hours, Laboratories 1½ hours. Professor LASCOFF.

This course in Commercial Pharmacy is designed to give the student a practical knowledge of the basic principles that underlie the successful management of a business. Owing to a lack of knowledge of these principles, many pharmacists have failed to achieve the degree of success to which their professional knowledge and training entitle them.

The course consists of all the activities incidental to the opening and operation of a retail drug-store, including the choice of location, the elements of business administration and store management, insurance, problems of retail merchandising, including the value of discounts, banking,

principles of advertising and salesmanship, business correspondence as well as the elements of systematic bookkeeping.

The accounting records are the basic source of data for business management. Accordingly, the course in commercial pharmacy will be devoted largely to the principles underlying the making and interpretation of these records.

The course develops the subject rapidly devoting its time and emphasis to the foundational problems of accounting. It is built up along the lines and methods of modern accounting practice. The subject matter includes: theories of debit and credit; classification of accounts; underlying principles of various accounting records; business papers and documents used as the basis for first entry; simple problems of the balance sheet and income statement; single entry; controlling accounts; handling sales and purchases; safeguarding the cash; consignments, and related topics. Ample practice for students is provided. The work will be related to the modern pharmacy.

A portion of the course will be devoted to general business and pharmaceutical law.

**Pharmacy 64—Pharmaceutical Jurisprudence.** 2 points. 1½ hours.  
Lecturer NEUSTAEDTER.

This course is designed to familiarize the student with the general provisions of State and Federal Laws governing the practice of pharmacy. Ordinances and regulations having local application only will likewise be studied.

Special attention will be given to the prohibition and anti-narcotic laws and regulations.

A knowledge of these laws and regulations is essential to the proper and safe conduct of a drug-store or pharmacy.

**Pharmacy 102—Advanced Pharmacy.** Lectures and recitations, 1 hour.  
Laboratory, 1 hour, 3 points. Professors DIEKMAN, WIMMER and BROWN.

Members of the university class will devote the entire time between the examinations of the college class and those of the university class to work in the pharmacy laboratory.

The theoretical part of the course is devoted to the study of the more advanced methods of dispensing and compounding, as well as to the study of methods and processes employed in the manufacture of pharmaceutical preparations.

The practical part embraces the compounding of prescriptions requiring advanced knowledge and skill, and the manufacture of official preparations, such as compressed tablets, plasters, salve mulls, pastes, pencils, sprays, inunctions and others.

Text-book: Scoville, *Art of Dispensing*.

**Pharmacy 109-110—Higher Pharmacy.** Lectures and recitations, 3 hours.  
Laboratory work 5 hours, 11 points. Professors DIEKMAN and WIMMER and BROWN, and instructors.

The course in this department consists of a series of lectures, laboratory exercises and recitation. The scope of this work comprises the manufacture and study of a number of the more difficult Pharmacopœial and National Formulary preparations, as well as of synthetic remedies. In the manufacture of the latter class of preparations, especial emphasis will be laid upon the proper assemblage, arrangement and use of apparatus.

The entire time assigned for work in the dispensing laboratory will be devoted to a comprehensive study of the subject of prescription incompatibilities. The large number of new remedies which are constantly being employed make the work in this field attractive and valuable.

**Pharmacy 111-112—Dispensing Pharmacy.** Laboratory work, 2 hours,  
2 points. Professors WIMMER and BROWN.

Text-books: *U. S. Pharmacopœia*, 9th edition; *National Standard Dispensary*, latest edition; *National Formulary*, 4th edition.

**Pharmacy 163-164—Higher Pharmacy.** Lectures and recitations, 1½ hours.  
Laboratory work 7 hours, 10 points. Professors DIEKMAN, WIMMER and BROWN.

The work in this course consists of a series of lectures and practical laboratory exercises. The



manufacture and subsequent analysis of flavoring extracts, cosmetics, medicated gauzes, and other articles of like nature, will receive the attention which this important subject merits. Proximate vegetable analysis will also be studied and carried on.

The time assigned for work in the dispensing laboratory will be devoted to the compounding of difficult prescriptions. Pharmaceutical topics of current interest will be discussed in a series of weekly seminars.

Text-book: *U. S. Pharmacopœia*, 9th edition.

## SUMMER LABORATORY AND QUIZ COURSES

These courses are designed to assist students who have failed at the spring examinations to prepare for those of the fall, and to provide instruction for special students in the use of the microscope, in the examination of drugs and in pharmaceutical processes.

It will thus be seen that the work is not definitely fixed, but is made sufficiently elastic to allow it to be adapted to the special needs of individuals.

### LABORATORY COURSES 1927

Fees: Twenty-five Dollars for each subject.

June 6 to June 25—Analytical Chemistry and Physics.

June 27 to July 18—Botany and Pharmacognosy.

July 20 to August 8—Pharmacy and Dispensing Pharmacy.

### QUIZ COURSES 1926

Fees: Fifteen Dollars for each subject.

These courses will be held during the period from August 16 to September 4. No course will be given to a class numbering less than five students. First-year students will attend on Tuesday, Thursday and Saturday, and second-year students on Monday, Wednesday and Friday. The schedule of hours for each day will be as follows:

#### *First Year*

9 a. m.—10 a. m. Botany  
10 a. m.—11 a. m. Physiology  
11 a. m.— 1 p. m. Chemistry  
2 p. m.— 4 p. m. Pharmacy  
4 p. m.— 5 p. m. Physics

#### *Second Year*

9 a. m.—10 a. m. Materia Medica  
10 a. m.—11 a. m. Toxicology  
11 a. m.— 1 p. m. Pharmacy  
2 p. m.— 4 p. m. Chemistry  
4 p. m.— 5 p. m. Dispensing Pharmacy

## EVENING COURSES

These courses of instruction, as reorganized, have been largely attended. Although they cannot be substituted for any of our regular work, leading to degrees, they have proven of great benefit to those who cannot attend instruction during the daytime and to those who desire to pursue special courses of study. General educational credits are not allowed for them. They are designed for special students as well as for members of our regular classes. Certificates will be awarded to those who attend at least 80 per cent of all of the exercises of the

course for which they register and who, in addition, receive a satisfactory grade in a final examination. Students may be admitted at any time at the discretion of the instructor in charge. A registration fee of \$6.00 is required of each student. The courses are given on three evenings of each week from Monday, October 4, 1926, to Friday, April 30, 1926. Students may pursue more than one of the courses offered during the same semester. Fees are payable in advance and are not returnable. The following courses of instruction are offered:

**Chemistry, Phr. 20-e—Pharmaceutical Qualitative Analysis.** 1 hour classroom and 2 hours' laboratory each week. Fee, \$16 each session. Mr. MACSATA and assistant.

7:30-10:30 p. m., Friday.

Lecture, 7:30-8:20 p. m.

Laboratory, 8:30-10:30 p. m.

This course, which presupposes a knowledge of general pharmaceutical chemistry is designed to train students in the qualitative tests for metal-ions included in the United States Pharmacopœia. (Conditional on the enrollment of 10 students.)

Laboratory fee, \$5 per session.

Deposit for breakage, \$10.

**Chemistry, Phr. 21-e—Pharmaceutical Qualitative Analysis.** 1 hour classroom and 2 hours' laboratory work each week. Fee, \$16 each session. Mr. MACSATA and assistant.

7:00-10:00 p. m., Friday.

Laboratory, 7:00-9:00 p. m.

Lecture, 9:10-10:00 p. m.

This course is a continuation of 20-e with particular reference to the U. S. P. tests for acid-ions. (Conditional on the enrollment of 10 students.)

Laboratory fee, \$5 per session.

Fee for breakage, \$10.

**Chemistry, Phr. 22-e—Pharmaceutical Volumetric Analysis.** 1 hour classroom and 2 hours' laboratory work. Fee, \$16 each session. Mr. MACSATA and assistant.

7:00-10:30 p. m., Friday.

This course is designed to give training in the volumetric assays of the United States Pharmacopœia. (Conditional on the enrollment of 10 students.)

Laboratory fee, \$5 per session.

Deposit for breakage, \$10.

**Chemistry, Phr. 24-e—Examination of Urine.** 1 hour lecture and 2 hours' laboratory work. Fee, \$16. Professors HOSTMANN and McADAMS and assistant.

7:15-10:30 p. m., Friday.

Lecture, 7:20-8:20 p. m., Friday.

Laboratory, 8:30-10:30 p. m., Friday.

In this course the qualitative and quantitative chemical tests of normal and pathological urine

are studied; also the preparation and standardization of the necessary reagents. (Conditional upon the enrollment of twenty students.)

Laboratory fee, \$5.

Deposit for breakage, \$10.

**Chemistry, Phr. 25-e—Examination of Urine.** 1½ hour lecture and 2 hours' laboratory work. Fee, \$16. Professors HOSTMANN and MCADAMS and assistant.

7:30–10:00 p. m., Friday.

Lecture, 7:30–8:00 p. m., Friday.

Laboratory, 8:20–10:00 p. m., Friday.

In this course, a continuation of 24-e, the gravimetric, polariscopic, colorimetric and microscopic examination of urine is studied. (Conditional upon the enrollment of twenty students.)

Laboratory fee, \$5.

Deposit for breakage, \$10.

**Pharmacy, Phr. 10-e—Elementary Pharmacy.** 1 hour lecture and 2 hours' laboratory work each week. Fee, \$16 each session. Special laboratory fee, \$5 each session. Professor BROWN and assistant.

7:30–10:30 p. m., Tuesday.

This course is of value to those employed in pharmaceutical laboratories. Pharmaceutical operations as well as dispensing practices are studied and carried out. (Conditional upon the enrollment of ten students.)

**Pharmacy, Phr. 11-e—Advanced Pharmacy.** 1 hour lecture and 2 hours' laboratory work each week. Fee, \$16 and special laboratory fee, \$8 each session. Professor BROWN and assistant.

7:30–10:30 p. m.

In the winter session instruction is given in the manufacture of the more difficult medicinal preparations, such as the compressed tablets, medicated gauzes, ampoules, etc. During the spring session methods of analysis for such preparations and galenicals in general are studied and carried out. (Conditional upon the enrollment of ten students.)

**Pharmacy, Phr. 12-e—Manufacturing Pharmacy.** 1½ hours lectures and 1½ hour laboratory work each week. Fee, \$20 and special laboratory fee, \$5 each session. Professor WIMMER and assistants.

7:30–10:30 p. m., Tuesday.

This course is of value to those desiring to prepare and place upon the market lines of specialties. The course is elastic and designed to meet individual requirements. One may take up the study of an entire series of preparations, or any one preparation in considerable detail. (Conditional upon the enrollment of ten students.)

**Pharmacy, Phr. 14-e—Manufacture of Cosmetics and Toilet Preparations.** 1½ hours' lectures and 1½ hours' laboratory work each week. Fee, \$24 and \$5 special laboratory fee each session. Professor WIMMER and assistants.

7:30–10:30 p. m., Tuesday. Main lecture room, Pharmacy.

This course affords a thorough review of the entire subject of cosmetics and toilet preparations, their composition and manufacture. Face lotions, hair dyes and other hair preparations, face pow-

ders and paints, cream (greasy, non-greasy and vanishing), toothwashes and powders, etc., are studied and certain types are manufactured. (Conditional upon the enrollment of ten students.)

A summary of the lecture topics will be furnished upon request.

**Pharmacy, Phr. 15-e—Perfume Materials and Perfumery.** 1 hour lecture and 2 hours laboratory work each week. Fee, \$50 each semester. A special laboratory fee must be paid by students taking the second semester. Professor WIMMER and assistants.

Monday 7 p. m. Main Lecture Hall.

This course is of value to persons employed in essential oil houses and perfume manufacturing establishments and others desiring to enter this field. The lectures are illustrated with lantern slides and samples of the materials under discussion are exhibited. The laboratory work comprise the determination of physical constants, testing for impurities, etc. A systematic course in nose-training is included. The second semester consists mainly of practical work.

A summary of the course will be mailed upon request.

**Microscopy, Phr. 16-e—Microanalysis of Drug Products.** 1½ hours' lecture and 2 hours' laboratory work each week. Fee, \$20 each semester. Laboratory fee, \$15 each session. Professor BALLARD and assistants.

Monday—Lectures, 7:00-8:20 p. m. Laboratory, 8:30-10:30 p. m.

This course provides instruction in the identification and examination of powdered drugs, and medicinal products amenable to microscopic examination. Satisfactory courses in botany, vegetable histology and pharmacognosy are necessary prerequisites. (Conditional on an enrollment of five students.)

**Microscopy, Phr. 17-e—Microanalysis of Food Products.** 1½ hours' lecture and 2 hours' laboratory work each week. Fee, \$20 each semester. Laboratory fee, \$15 each session. Professor BALLARD and assistants.

Monday—Lectures, 8:30-9:45 p. m. Laboratory, 7:00-8:30 p. m. and 9:45-10:30 p. m.

This course provides instruction in the microscopic examination of foods and food products. Satisfactory courses in botany and vegetable histology are necessary prerequisites. (Conditional on an enrollment of five students.)

**Bacteriology, Phr. 18-e—Principles and Practice of** 1 hour lecture and 2 hours laboratory work each week. Fee, \$24 each semester. Laboratory fee \$15 each semester. Professor HART and assistants.

Monday—Lectures 7:00-8:00 p. m. Room 42, Pharmacy.

Monday—Laboratory 8:00-10:00 p. m.

This course includes the bacterial examination of sputum, excreta, water, air, milk and ice.

Special attention is given to the methods of disinfection and sterilization. The major portion of the time is devoted to the cultivation, morphology and staining properties of the more common pathogenic bacteria.

**Blood Analysis 19-e—**1 hour lecture and 2 hours Laboratory work each week, 1 semester. Fee \$24 and \$15 laboratory fee. Professor HART and assistants.

7:00-10:00 p. m., Tuesday.

Tuesday—Lecture 7:00-8:00 p. m.

Tuesday—Laboratory 8:00-10:00 p. m.,

The entire semester is devoted to the chemical analysis of blood, the preparation of blood smears and blood count.

**Parasites, Phr. 20-e—of the blood and intestines.** 1 hour lecture and 2 hours laboratory work each week, 1 semester. Fee \$24 and \$15 laboratory fee. Professor HART and assistants.

Tuesday—7:00-10:00 p. m.

In this course chief attention is given to changes from normal to abnormal blood due to parasites as well as the more pathogenic blood and intestinal parasites.

Time is also allotted to the mycology of foods.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

THE ALUMNI ASSOCIATION OF THE COLLEGE OF  
PHARMACY OF THE CITY OF NEW YORK

OFFICERS AND COMMITTEES, 1926-1927

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ROBERT R. GERSTNER

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ADOLPH HENNING

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## ENDOWMENTS

For ninety-seven consecutive years the College of Pharmacy of the City of New York has maintained its annual courses of instruction for the education and training of pharmacists. That this instruction has exhibited a steady extension and improvement is clearly recorded in the successive editions of its annual prospectus. That such a result could not have been attained by the use of students' fees, unaided by other resources, will be readily understood by all who have had experience in educational administration. Such assistance may be said to have begun with the generous contribution of free instruction services by Professors Edward R. Squibb, Charles F. Chandler and others, in the early history of the institution, and to have continued with the services of their successors, and the unpaid management of officers and trustees. At various times, financial crises have been met by generous donations of money by officers and members, and occasionally by outside friends. In some cases, as when new quarters were to be secured, a new building was to be erected, or herbarium or apparatus to be bought, the sums thus contributed have been large, considering the resources of those contributing.

As indicated in the preceding pages of this *Announcement*, in addition to the regular course of two years, leading to the degree of Ph.G., the College now provides a regular course of three years, leading to the degree of Ph.Ch., with an additional year of optional work, leading to the degree of B.S. in Phar.

Plans for a graduate course of two years, leading to the degree of Doctor of Pharmacy, have been perfected by the Faculty, but cannot be carried out at the present time, for want of the necessary material resources. That the strain of such a charge upon those resources is very great, calling as it does for an increased teaching force, newly equipped rooms and additional apparatus, requires no explanatory statement.

It is not to be expected that the scanty revenue derived from the fees of the small number of students who will pursue these advanced studies will begin to provide the necessary means for meeting the additional expenditures. The College must undertake these burdens as its contribution to pharmaceutical education.

Under such conditions, it is felt that an appeal should be made to those who are interested in promoting educational development in America to give their favorable consideration and to lend their financial aid to the present efforts of the School.

Since the actual instruction work of the school calls for the expenditure of our entire income received from student's fees, it follows that we are compelled, like other schools, to seek other courses of income for meeting this unusual expense.

Under the stress of immediate necessity, we have recently completed and occupied an extension to our former building, costing approximately \$300,000. This work was undertaken in the belief that the necessary amount would be contributed by the alumni and friends of the College. Up to the present time, only about one-half of the amount has been subscribed, and we present a special appeal for contributions to this cause.

There are also a number of ways in which comparatively small contributions will be immediately productive of great good in specific directions, and several of these are discussed below.

#### LIBRARY MAINTENANCE

The library facilities required by men engaged in the advanced studies of their fifth and sixth years are necessarily much more extensive than those now provided by the College. The research work in which such men will engage will call for a full supply of works of reference, not only in pharmaceutical subjects, but in the sciences contributory to pharmacy. Generous friends of the College, and one such in particular, have made frequent and extensive contributions to the Library, but it is highly desirable that an endowment be established that will yield a permanent annual fund of \$500 for such a purpose.

#### APPARATUS

The College, thanks to the generosity of the late Mr. Edward Kemp, possesses a splendid working equipment of physical apparatus, suitable for the ordinary purposes of pharmaceutical education. The advanced work of graduate students will require not only extensive additions, but continuous expenditures for new designs in order to keep pace with discovery and improvement.

An endowment of from \$5,000 to \$10,000 would admirably meet this demand.

#### MUSEUM

With the exception of the National Museum at Washington, there is no extensive pharmaceutical or materia medica museum in this country. Small museums exist in Philadelphia, Detroit, Cincinnati, at the New York Botanical Garden and elsewhere, but nowhere is there a museum proper comparable with those in London and Berlin. Civic pride, if no other consideration, should suffice to secure the establishment in New York City of a museum proportionate with the importance of the city as the port of entry for more than three-fourths of the drugs received into the United States. There are, however, other considerations of far greater importance. Scarcely a week passes without more than one inquiry from importers, brokers or merchants, and even from the City and Federal Departments, for unobtainable information concerning commercial articles of this class.

There should be some institution to which such inquirers could turn with reasonable certainty of an accurate reply. Furthermore, the ambition to supply Doctors of Pharmacy who are competent to meet all demands made upon them, even for the discovery of desired unknown facts, renders it imperative that a storehouse of materials for investigation should be available. The ideal location for such a museum is with the department of pharmacy of a strong and active university.

Such a museum involves more than a mere collection of labeled articles in cases. It calls for a comprehensive plan providing for future accessions, and for investigating the utility of new products. This calls for a curator with an



encyclopedic knowledge of the subject, and qualified to pursue original researches. Such an institution, thus equipped, could provide a continuous supply of original contributions in economic botany, connected upon the one side with sources of sound scientific information and authentication, and upon the other with the material welfare of our people.

A more creditable and permanent monument to its donor could scarcely be conceived. To establish such a museum, and also to provide properly for its care and maintenance, would require from \$100,000 to \$150,000.

#### ADDITIONAL PROFESSORSHIPS

The establishment of a number of lecture courses to be served by specialists in their respective subjects is an essential requisite in the work of the final years of an advanced course. Perhaps the most important of such subjects is the history of chemistry and pharmacy. The provision of even a short series of lectures would do much to point the way to investigation in the light of former achievement.

Those desiring to contribute toward any of the purposes named, or others in which they may be interested, will upon request be supplied with a form which may be used for the purpose.

## REGISTER OF GRADUATES

### PHARMACEUTICAL CHEMISTS, JUNE 4, 1924

Emelin, Arthur Charles Mamaroneck, N. Y.  
 Herzog, Henry  
 2250 Newbold Avenue, New York, N. Y.  
 Kingsley, John Francis  
 173 Lander Street, Newburgh, N. Y.  
 Sloshover, Joseph  
 355 East 10th Street, New York, N. Y.  
 Sullivan, Nathaniel Francis  
 1159 Castleton Ave., W. New Brighton, N. Y.  
 Timmermann, Helen Augusta  
 802 Lexington Avenue, New York, N. Y.  
 Ziegler, Harold Arnold  
 146 First Street, Long Island City, N. Y.  
 (7)

### BACHELOR OF SCIENCE IN PHARMACY, JUNE 3, 1925

Herzog, Henry  
 2250 Newbold Avenue, New York, N. Y.

Jayne, Leslie Port Washington, N. Y.  
 Maier, Augustus Andrew Middletown, N. Y.  
 Sloshover, Joseph  
 355 East 10th Street, New York City  
 Timmermann, Helen Augusta  
 892 Lexington Avenue, New York, N. Y.  
 Ziegler, Harold Arnold  
 146 First Avenue, Long Island City, N. Y.  
 (6)

### PHARMACEUTICAL CHEMISTS, JUNE 3, 1925

Braaf, Alexander Elias  
 106 Ridge Street, New York, N. Y.  
 Markowitz, Harry  
 11 East 118 Street, New York, N. Y.  
 Rosenthal, Albert  
 3211 Railroad Ave., New York, N. Y.  
 Teicher, Morris  
 527 West 135 Street, New York, N. Y.  
 (4)

## GRADUATES IN PHARMACY, MAY 16, 1925

Adams, Joseph Edison  
 63 Hopkins Avenue, Jersey City, N. J.  
 Albert, Stanley  
 26 Ridgewood Avenue, Waterbury, Conn.  
 Alexander, Arthur  
 34 West 116 Street, New York City  
 Alfieri, Joseph D.  
 264 So. Main Street, Waterbury, Conn.  
 Altman, George  
 513 Vermont Street, Brooklyn, N. Y.  
 Amapani, Floriano  
 1053 Carroll Place, New York City  
 Amsterdam, Herman J.  
 21 East 5 Street, Brighton Beach, N. Y.  
 Antokoletz, Joseph  
 1517 Nelson Avenue, New York City  
 Appelbaum, Nathan  
 1845 7th Avenue, New York City  
 Appleman, Morris  
 326 Neptune Avenue, Brighton Beach, N. Y.  
 Arone, Columbus Frank Ardsley, N. Y.  
 Bain, William Peer  
 Second Avenue, Bay Shore, N. Y.  
 Barasch, Charles  
 1352 Lexington Avenue, New York City  
 Baron, Nathan  
 106 West 89th Street, New York City  
 Barr, Joseph  
 2002 Avenue J, Brooklyn, N. Y.  
 Bell, Maier Baer  
 645 Harrison Place, W. New York, N. J.

Benefeld, Ephraim James  
 693 Coney Island Ave., Brooklyn, N. Y.  
 Bennett, John Wilson, Jr.  
 33 No. Fifth Avenue, Long Branch, N. J.  
 Berger, Benjamin  
 1310 Morris Avenue, New York City  
 Bergman, Jack  
 522 Vermont Street, Brooklyn, N. Y.  
 Berkowitz, Morris  
 42 Essex Street, New York City  
 Bernitz, David  
 392 East 8 Street, New York City  
 Bierfass, Morris Leo  
 121 Columbia Street, New York City  
 Bierman, Samuel  
 636 Wales Avenue, New York City  
 Birnbaum, Abraham  
 62 East 113 Street, New York City  
 Bloom, Hyman H.  
 387a Atkins Avenue, Brooklyn, N. Y.  
 Boccia, Raphael 37 Strong Street, Corona, N. Y.  
 Bonaccolto, Gaetana  
 322-2nd Avenue, New York City  
 Braunstein, Hyman  
 175 Norfolk Street, New York City  
 Braunstein, Leo  
 496 Bedford Avenue, Brooklyn, N. Y.  
 Brawer, Solomon  
 872 Dawson Street, New York City  
 Breger, Samuel  
 606 Third Avenue, New York City

- Brode, Harry  
 887 Longwood Avenue, New York City  
 Brody, Bertha  
 612 East 4 Street, Brooklyn, N. Y.  
 Bronstein, Abraham Mayer  
 9210 Jamaica Avenue, Woodhaven, L. I., N. Y.  
 Bronznick, George  
 31 East 111 Street, New York City  
 Broverman, Abraham Louis  
 111 Barbour Street, Hartford, Conn.  
 Bucci, Domenick  
 136 Henderson Street, Port Chester, N. Y.  
 Bucholz, Samuel 272 So. 9 Street, Brooklyn, N. Y.  
 Bulhack, Morris John  
 316 East 82 Street, New York City  
 Cagnina, Vincent Bruno  
 829 Willoughby Ave., Brooklyn, N. Y.  
 Carroll, George L. Suffern, N. Y.  
 Cassani, James Guy  
 158 Central Avenue, Chelsea, Mass.  
 Cherkis, Louis Myron  
 606 Ashford Street, Brooklyn, N. Y.  
 Christmann, Herman Carl  
 Valley Stream, L. I., N. Y.  
 Cohen, Adolf  
 553 Humboldt Street, Union Hill, N. J.  
 Cohen, Alexander  
 516 West 156 Street, New York City  
 Cohen, David  
 179 East 105 Street, New York City  
 Cohen, Morris  
 1374 Boston Road, New York City  
 Coleman, Peter Fred  
 3314 Cortelyou Road, Brooklyn, N. Y.  
 Cuneo, Irene Teresa  
 41 West 8 Street, New York City  
 Danielson, John Joseph  
 977 Hack Plankroad, No. Bergen, N. J.  
 Datri, William Francis  
 182 Bay 13 Street, Brooklyn, N. Y.  
 Derow, Frank Uncasville, Conn.  
 Diamond, Joseph Leo  
 27 Emmons Street, Long Branch, N. J.  
 Dickman, Harry  
 475 Alabama Avenue, Brooklyn, N. Y.  
 Dickter, James  
 475 Sackman Street, Brooklyn, N. Y.  
 Dietz, William Jacob  
 2 Holbrook Street, Port Jervis, N. Y.  
 Dimler, Marguerite Caroline  
 104-9th Street, Hoboken, N. J.  
 Dishler, Max  
 101 West 47 Street, Bayonne, N. J.  
 Dorfman, Jacob Simcho  
 1444-43rd Street, Brooklyn, N. Y.  
 Drexler, Jacob  
 2021 LaFontaine Avenue, New York City  
 Dubin, William  
 1001 St. Nicholas Avenue, New York City  
 Duff, Gordon Charles  
 Thomaston, Litchfield Co., Conn.  
 DuPlessis, Leon Philip  
 38 Hubbard Street, Meridon, Conn.  
 Ebner, Samuel  
 144 Attorney Street, New York City  
 Egrý, Charles  
 58-18th Avenue, Long Island City, N. Y.  
 Elinson, Sam  
 68 East 107 Street, New York City  
 Ellenbogen, Rae Turim, Mrs.  
 257 East 2 Street, New York City  
 Fagen, Max  
 7516-20th Street, Brooklyn, N. Y.  
 Failmeizer, Theodore Richard  
 Metuchen, Middlesex, N. J.  
 Feigenbaum, Robert  
 606 East 83 Street, New York City  
 Feiner, Alexander  
 54 Columbia Street, New York City  
 Feld, Fischel  
 754 East 161 Street, New York City  
 Fenney, Nicholas William  
 570 Elm Street, New Haven, Conn.  
 Ferriolo, Anthony Marino  
 278 St. John's Street, New Haven, Conn.  
 Finkelstein, Benjamin  
 770 East 168 Street, New York City  
 Frankel, Max  
 156 Second Avenue, New York City  
 Frey, Benjamin  
 891 Jefferson Avenue, Brooklyn, N. Y.  
 Friedman, Paul Julius  
 484 East 164 Street, New York City  
 Garfunkel, Nelson  
 1517 Third Avenue, New York City  
 Gassler, Edward Isidor  
 207 Graham Avenue, Brooklyn, N. Y.  
 Gershovsky, Meyer  
 1354-5th Avenue, New York City  
 Gerstein, Max  
 790 East 152 Street, New York City  
 Getzoff, Arthur  
 961 Simpson Street, New York City  
 Glatzerman, Benjamin Colchester, Conn.  
 Glickstern, Isidore  
 416 East 10 Street, New York City  
 Goldberg, Isaac  
 390 Bellevue Street, Hartford, Conn.  
 Goldberg, Samuel  
 794 Elsmere Place, New York City  
 Goldberg, Samuel S.  
 542 Saratoga Avenue, Brooklyn, N. Y.  
 Goldstein, Samuel Solomon  
 542 Madison Street, Brooklyn, N. Y.  
 Goldstein, Solomon  
 1053 Avenue C, Bayonne, N. J.  
 Gradstein, Solomon  
 88 Avenue A, New York City

- Greenberg, Joseph  
305 East 125 Street, New York City
- Greenberg, Max  
Sheldon Avenue, Tarrytown, N. Y.
- Greenspun, Julius  
294 Capitol Avenue, Bridgeport, Conn.
- Gubitosi, Emanuele  
301 West 119 Street, New York City
- Gurry, Leo Francis  
1305 Elm Street, Utica, N. Y.
- Gutchin, Samuel  
66 Powell Street, Brooklyn, N. Y.
- Gutterman, Isadore  
607 East 139 Street, New York City
- Halper, Benjamin H.  
1208 Maple Avenue, Peekskill, N. Y.
- Halstater, Aaron  
219 Waverley Avenue, Newark, N. J.
- Hamudis, David  
2869 Bainbridge Avenue, New York City
- Harkavy, Isidore Alexander  
502 West 177 Street, New York City
- Hartman, Otto Louis  
944 Emma Street, Elizabeth, N. J.
- Hashinsky, Raphael  
1720 Bath Avenue, Brooklyn, N. Y.
- Hauck, Rudolf Otto  
3511-34th Street, Jackson Heights, L. I., N. Y.
- Haussman, Paul Julius  
379 College Avenue, New York City
- Heimoff, Abraham  
783 Beck Street, New York City
- Heller, Samuel  
2211 Second Avenue, New York City
- Herman, Minnie  
16 West End Court, West End, N. J.
- Herschkowitz, Edward Ellie  
74 East 114 Street, New York City
- Hill, Henry  
158 Bay 31 Street, Brooklyn, N. Y.
- Hirsch, Rubin Leon  
963 Prospect Avenue, New York City
- Holland, Nathan  
746 Madison Ave., Bridgeport, Conn.
- Holub, George  
529 East 72 Street, New York City
- Horowitz, Hyman  
216 Summer Avenue, Brooklyn, N. Y.
- Horowitz, Sam  
365 South 3 Street, Brooklyn, N. Y.
- Howard, William H.  
214 West 141 Street, New York City
- Hurwitz, Raymond  
30 Halper Street, Hartford, Conn.
- Ingram, Chauncey  
51 Bristol Street, Brooklyn, N. Y.
- Itzkowitz, William  
1717-60th Street, Brooklyn, N. Y.
- Jacobs, Louis  
4404-13th Avenue, Brooklyn, N. Y.
- Jannuzzi, Patrick  
2 Howard Place, Jersey City, N. J.
- Kaine, David Harold  
1115 Boston Road, New York City
- Kaplan, Arthur  
2014 Bryant Avenue, New York City
- Kaplan, Israel Julius  
310 East 101 Street, New York City
- Kaplan, Louis  
503 Boulevard, Bayonne, N. J.
- Karchmer, Harry  
375 Brook Avenue, New York City
- Katztofi, David  
946 Bronx Park South, New York City
- Keese, Percival  
57 Clifton Place, Brooklyn, N. Y.
- Kiesler, Frederick  
317 East 18 Street, New York City
- Kirsch, Sol  
276 East 23 Street, Brooklyn, N. Y.
- Kittay, Morris  
52 East 103 Street, New York City
- Klatt, Gustave A.  
Tallman Place, Englewood, N. J.
- Klein, Isadore  
Fleischmann's, N. Y.
- Klugman, Sam  
329 East 56 Street, New York City
- Knippler, Arthur August  
241 Court Street, Brooklyn, N. Y.
- Kobin, Henry  
1364 Sterling Place, Brooklyn, N. Y.
- Kopel, Joseph  
2 Bay Terrace, Brooklyn, N. Y.
- Kotler, Leo  
1938 Loring Place, New York City
- Kramer, Saul  
1364 Washington Avenue, New York City
- Krause, Theodore Nicholas  
269 Linden Street, Brooklyn, N. Y.
- Kressner, Bernard  
218 East 81 Street, New York City
- Kressner, Jack H.  
231 Division Avenue, Brooklyn, N. Y.
- Kurtz, Sam  
315 East Mt. Eden Avenue, New York City
- Kushner, Irwin  
1490 Crotona Park East, New York City
- Lambert, Israel  
1570 Washington Avenue, New York City
- Lantzis, Philip  
786 East 182 Street, New York City
- Lascoff, Dudley Victor  
336 West 95 Street, New York City
- Lazarovitz, Leo  
2123 Clinton Avenue, New York City
- Leblang, David  
101 Wayne Street, Middle Village, N. Y.
- Leibowitz, Leon  
594 East 138 Street, New York City

- Lellis, Julia  
 267 Sumpter Street, Brooklyn, N. Y.
- Leone, Daniel  
 232 Franklin Street, Norwich, Conn.
- Levin, Fred  
 77-12th Avenue, Paterson, N. J.
- Levin, Morris  
 651½ Koscuisko Street, Brooklyn, N. Y.
- Levine, Abraham  
 48 Temple Place, Passaic, N. J.
- Levine, Mortimer  
 1568-50th Street, Brooklyn, N. Y.
- Levinsky, Max  
 796 Pembroke Street, Bridgeport, Conn.
- Levitch, Nathaniel  
 1640-78th Street, Brooklyn, N. Y.
- Liberman, Bennett  
 17 Attorney Street, New York City
- Liberman, Samuel Solomon  
 17 Attorney Street, New York City
- Linzer, Samuel  
 721 Hancock Street, Brooklyn, N. Y.
- Lipman, Louis  
 54 Jefferson Street, Poughkeepsie, N. Y.
- Lipschutz, Joseph H.  
 105 So. 9th Street, Brooklyn, N. Y.
- McCoy, Alfred Lawrence  
 47 Park Avenue, Port Chester, N. Y.
- McKaba, George  
 134 State Street, Brooklyn, N. Y.
- Magaram, Henry  
 110 Delancey Street, New York City
- Mandell, Adolph Herman  
 191 Moore Street, Barberton, Ohio
- Marano, Rosario  
 304 East 106 Street, New York City
- Margolin, Abraham  
 59 East 100 Street, New York City
- Marotta, Attilio R.  
 104-14 Edson Place, Corona, N. Y.
- Marshall, Francis Edward  
 203 Buffalo Street, Fulton, N. Y.
- Mascia, Violet  
 759 North Oak Drive, New York City
- Maslinoff, Joseph Louis  
 3 Jaggar Avenue, Flushing, L. I., N. Y.
- Mayzell, Julius  
 55 Cooper Avenue, Long Branch, N. J.
- Megibow, Morris  
 121-17th Street, W. New York, N. J.
- Meyers, Abe  
 1158-55th Street, Brooklyn, N. Y.
- Miale, Joseph Peter  
 341 East 16 Street, New York City
- Milliman, George E.  
 13 Upton Park, Rochester, N. Y.
- Millindorf, Hyman Box 291, Colchester, Conn.
- Mintzis, Schlioma A.  
 245 E. Broadway, New York City
- Mirsky, Fred  
 927 East 181 Street, New York City
- Monza, Peter Frank  
 128 West 48 Street, New York City
- Moore, Edward Willis  
 624 Broadway, Newburgh, N. Y.
- Munves, Lillian  
 6622-22nd Avenue, Brooklyn, N. Y.
- Murphy, Harry Edwin  
 Main Street, Chateaugay, N. Y.
- Murray, John Leslie  
 107 Clove Avenue, Haverstraw, N. Y.
- Naidorf, Charles  
 518 Saratoga Avenue, Brooklyn, N. Y.
- Naylor, Montford David  
 235 East 75 Street, New York City
- Nebel, Arthur David  
 393 East 35 Street, Brooklyn, N. Y.
- Nemiroff, Israel  
 1178-42 Street, Brooklyn, N. Y.
- Nemzer, Samuel  
 60 East 117 Street, New York City
- Nerrie, James Scott  
 7 Lafayette Avenue, Beacon, N. Y.
- Nevelsky, Harry  
 79 East 107 Street, New York City
- Norr, George August  
 42 Coplar Street, Jersey City, N. J.
- Oberweger, Maurice  
 125 Division Avenue, Brooklyn, N. Y.
- Orlick, Isidore  
 152 Newport Avenue, Brooklyn, N. Y.
- Ostrow, Charles  
 677 Marcy Avenue, Brooklyn, N. Y.
- Oxley, Barrett 172 Broadway, Long Branch, N. J.
- Papalia, Peter  
 600-35th Street, No. Bergen, Woodcliff, N. J.
- Papalinsky, Harry  
 1001 Lincoln Place, Brooklyn, N. Y.
- Parks, C. Clayton  
 4 Park Avenue, Ext., Naugatuck, Conn.
- Passman, Meyer  
 636 Essex Street, Brooklyn, N. Y.
- Pawlik, Alexander  
 23 Terrace Avenue, W. Paterson, N. J.
- Pearl, Frank Aaron  
 55 West 110 Street, New York City
- Pearlman, Isidore T.  
 3195 Fulton Street, Brooklyn, N. Y.
- Peller, Frank  
 867 DeKalb Avenue, Brooklyn, N. Y.
- Perkins, Harold Ausmer  
 39 Forest Avenue, Glen Cove, N. Y.
- Petter, Elias  
 760 Trinity Avenue, New York City
- Petter, Phillip  
 760 Trinity Avenue, New York City
- Picower, Abraham Harry  
 1045 Lowell Street, New York City

- Plaskowitz, Philip  
286 East 3 Street, New York City
- Platzman, Philip  
1242 Boynton Avenue, New York City
- Plotkin, Maurice Eli  
119-15th Street, Brooklyn, N. Y.
- Pokorny, Frank Joseph  
361 East 71 Street, New York City
- Poliakoff, Solomon  
1776 Weeks Avenue, New York City
- Pollack, Isidore  
107 Bay 13th Street, Brooklyn, N. Y.
- Pollack, Sol  
52 Reid Avenue, Brooklyn, N. Y.
- Polo, Nathan  
4718 Fort Hamilton Parkway, Bklyn, N. Y.
- Propper, Ruth Hortense  
225 Chestnut Street, Garfield, N. J.
- Rabinowitz, Harry William  
57 Shpoler Avenue, Corona, N. Y.
- Rabinowitz, Leo  
1422-2nd Avenue, New York City
- Rackard, George Martin  
145 West 135 Street, New York City
- Rappaport, Philip  
172 Monroe Street, New York City
- Reiser, Abraham  
22 West 118th Street, New York City
- Ricciardelli, Sylvia  
241 Montgomery Street, Jersey City, N. J.
- Rich, Leonard  
134 Maple Avenue, Rye, N. Y.
- Rippert, Gomer Jenner  
176 Center Street, Ellenville, N. Y.
- Roemer, Sidney Saul  
977 Simpson Street, New York City
- Rosenberg, David  
1364 Brook Avenue, New York City
- Rosenberg, Emanuele  
126 Cannon Street, New York City
- Rosenberg, Samuel  
156 Bassett Street, New Haven, Conn.
- Rosenblum, Goodman  
37 Tapscott Street, Brooklyn, N. Y.
- Rosenfield, Charles  
190 Windsor Street, Hartford, Conn.
- Rosenoff, Arthur  
938 Intervale Avenue, New York City
- Rosenzweig, Blanche Ada  
361 Halsey Street, Brooklyn, N. Y.
- Rosinger, Nicolaus  
480 East 141 Street, New York City
- Roth, Moe  
906 East 178 Street, New York City
- Rothfeld, Joseph  
1295 Madison Avenue, New York City
- Rothstein, Joseph  
286 East Broadway, New York City
- Rovero, Elizabeth  
304 East 28 Street, New York City
- Rudes, Isaac  
151-2nd Avenue, New York City
- Ryan, William Francis  
1622 Bennett Street, Utica, N. Y.
- Sabella, John Frank  
91 Church Avenue, Brooklyn, N. Y.
- Sager, Julius  
95 West 41 Street, Bayonne, N. J.
- Samnick, Milton  
835 West 178th Street, New York City
- Samourkashian, Manook N.  
37 Howell Place, Arlington, N. J.
- Sanders, Joseph  
995 Union Avenue, New York City
- Sass, Julius Hankins, Sullivan Co., N. Y.
- Savadsky, Isaac  
705 Belmont Avenue, Brooklyn, N. Y.
- Savin, Maurice  
48 Hurlburt Street, New Haven, Conn.
- Saylor, Joseph W.  
200 South Duke Street, York, Pa.
- Scandifio, Nicholas Robert  
16 Grand Avenue, Baldwin, N. Y.
- Schaeffer, Sophie  
101 West 115 Street, New York City
- Schenfeld, Joseph  
110 West 119th Street, New York City
- Schneiderman, Jack  
2953 West 28 Street, Brooklyn, N. Y.
- Schulman, Max  
171 Broadway, Newburgh, N. Y.
- Schwartz, David  
931-48th Street, Brooklyn, N. Y.
- Schwartzkroin, Isaac  
1222 Ward Avenue, New York City
- Scognamiglio, Pasquale  
10 Marshall Street, Paterson, N. J.
- Scolney, Isaac Joseph  
889 East 176 Street, New York City
- Selinger, Benjamin  
91 Debevoise Street, Brooklyn, N. Y.
- Seller, Joseph  
35 Harrison Avenue, Brooklyn, N. Y.
- Seloff, Ida  
1662 Boston Road, New York City
- Serote, Morris  
68 Garden Street, Poughkeepsie, N. Y.
- Shaffet, Nelson  
650 Linden Boulevard, Brooklyn, N. Y.
- Sharal, Daniel  
1420-49th Street, Brooklyn, N. Y.
- Shavitz, Samuel  
416 Undercliff Avenue, Edgewater, N. J.
- Sher, David  
184 School Street, Quincy, Mass.
- Shuman, Max  
945 Main Street, New Rochelle, N. Y.
- Siegel, Aaron Joseph  
110 Potter Street, New London, Conn.
- Siegel, Hyman  
20 Herzel Street, Brooklyn, N. Y.

- Siegel, Jacob  
29 East 104 Street, New York City
- Siegel, Jacob N.  
7811-18th Avenue, Brooklyn, N. Y.
- Silberfarb, Louis B.  
1306 College Avenue, New York City
- Silverman, Herbert Henry  
272 Varick Street, Jersey City, N. J.
- Silverman, Isidore  
369 Vernon Avenue, Brooklyn, N. Y.
- Simpson, Charles Harland, Jr.  
188 Broadway, Newburgh, N. Y.
- Sklar, Nathan  
27 Rutgers Street, New York City
- Slavin, Jacob  
632 East 11 Street, New York City
- Smith, Morton Ralph  
174 East 71 Street, New York City
- Smith, Richard Schofield  
50 Sylvan Street, Rutherford, N. J.
- Soll, Samuel  
77 East 4 Street, New York City
- Stein, Max  
111 East 118 Street, New York City
- Stella, Nello  
351 East 19 Street, New York City
- Stenzler, Abraham  
25 East 99 Street, New York City
- Stoeffler, Harold  
21 Henry Street, Waterbury, Conn.
- Stoliar, Abraham  
165 Garfield Avenue, Long Branch, N. J.
- Strumph, Nathan  
302 East 100 Street, New York City
- Sussman, Harry  
559 Nostrand Avenue, Brooklyn, N. Y.
- Sutin, Samuel Charles  
1724 Washington Avenue, New York
- Swersky, Israel  
47 Cooper Avenue, Long Branch, N. J.
- Temliak, Irving  
48 East 103 Street, New York City
- Terranova, Dominick  
Purdy Street, Harrison, N. Y.
- Tindall, George Richard  
136 Liberty Street, Long Branch, N. J.
- Tobolsky, Abraham  
8 East 97 Street, New York City
- Travis, Louis  
3972-3rd Avenue, New York City
- Triolo, Peter  
79 Jamaica Avenue, Brooklyn, N. Y.
- Trumpler, Philip  
681 East 221 Street, New York City
- Turetzky, Charles  
101 W. Main Street, Norwich, New London,  
Conn.
- Tweedy, Irving Ira  
74 Tompkins Avenue, Brooklyn, N. Y.
- Ultan, Harry  
875 Fairmount Place, New York City
- Underwood, Ralph Edward  
233 Duncan Avenue, Jersey City, N. J.
- VanBlarcom, Vernon Bristol  
46 Armstrong Avenue, Jersey City, N. J.
- Vener, Benjamin  
336 Green Avenue, Brooklyn, N. Y.
- Vertes, William  
315 West 54 Street, New York City
- Vigliano, Mario  
219 Grand Street, New York City
- Wallach, Harry  
1649-78th Street, Brooklyn, N. Y.
- Walter, Ishmael Claymond  
6620 Larkin Street, Arverne, N. Y.
- Wasserwolf-Kaczka, Leibisz  
591 East 140 Street, New York City
- Wechsler, Ethel  
6 Greene Street, Monticello, N. Y.
- Weiner, Irving Edward  
212 West Main Street, Somerville, N. J.
- Weingast, Sophie  
553 Georgia Avenue, Brooklyn, N. Y.
- Weinraub, Samuel  
R. F. D. No. 3 New Brunswick, N. J.
- Weinstein, Max  
1657 Lexington Avenue, New York City
- Weinstein, Seymour  
1109 Franklin Avenue, New York City
- Weiss, Simon  
780 East 180 Street, New York City
- Willner, Abraham Bernard  
1878 Lexington Avenue, New York City
- Wilner, Herman James  
57 Bishop Street, Waterbury, Conn.
- Wolfson, Solomon  
342 East 15 Street, New York City
- YaDeau, George James  
116 Henry Avenue, Palisade Park, N. J.
- Yeckel, Harold Frederick  
1432 Francis Street, Utica, N. Y.
- Zager, Samuel William  
558 Elm Street, New Haven, Conn.
- Zeviner, Hyman  
610 East 9 Street, New York City
- Zimels, Bernhard  
71 East 109 Street, New York City
- Zuckerman, Harry  
1070 Stebbins Avenue, New York City
- Zuckerman, Nathan  
72 Powell Street, Brooklyn, N. Y.
- Zupp, Edmund H.  
6 Pine Street, Ellenville, Ulster Co., N. Y.

## GRADUATES IN PHARMACY, SEPTEMBER 12, 1925

- Abramowich, Lazarus  
1544 East 4th Street, Brooklyn, N. Y.
- Abramowitz, Harry  
400 Madison Avenue, Paterson, N. J.
- Avignone, Horatio Joseph  
9 South 22nd Street, Flushing, N. Y.
- Balicer, Max  
239 East 122nd Street, New York, N. Y.
- Birnbaum, Dora  
191 South 2nd Street, Brooklyn, N. Y.
- Bronstein, Morris  
1267 Grant Avenue, New York, N. Y.
- Bugle, Howard Francis  
73 West 51st Street, Bayonne, N. J.
- Celano, Adalgisa  
2282 Arthur Avenue, New York, N. Y.
- Chaderton, William E.  
533 Third Avenue, New York, N. Y.
- Cornish, Edwin Zoltan  
273 West 113th Street, New York, N. Y.
- De Vito, Anthony  
8724 Fourth Avenue, Brooklyn, N. Y.
- Dick, William Max  
4512-15th Avenue, Brooklyn, N. Y.
- D'Orsogna, Horatio William  
600 East 182nd Street, New York, N. Y.
- Fialk, Samuel Levitt  
198 Hopkins Avenue, Jersey City, N. J.
- Friedman, Bernard  
1949-62nd Street, Brooklyn, N. Y.
- Garcia, Manuel Las Piedras, Porto Rico
- Glick, Abraham Irving  
171 Meserole Street, Brooklyn, N. Y.
- Goldman, Milton Bernard  
9 West 117th Street, New York, N. Y.
- Goldstein, Hyman  
190 Easton Avenue, Waterbury, Conn.
- Goodman, Samuel  
496 Sackman Street, Brooklyn, N. Y.
- Goorian, Barnett  
84 Watkins Street, Brooklyn, N. Y.
- Gordon, Mary  
28 Middle Neck Road, Great Neck, L. I.
- Gorski, Walter  
157 Huron Street, Brooklyn, N. Y.
- Grosky, Maxwell  
2324 Davidson Avenue, New York, N. Y.
- Katz, Isidor Bernard  
739 New Jersey Avenue, Brooklyn, N. Y.
- Kokin, Samuel  
81 Stockholm Street, Brooklyn, N. Y.
- Kraft, Emanuel  
249 West 116th Street, New York, N. Y.
- Lazar, Isaac  
133 Avenue D, New York, N. Y.
- Levy, Hyman Isaac  
624 Euclid Avenue, Akron, Ohio
- Lipschultz, Henry  
6 Iorio Court, Jersey City, N. J.
- Lovett, Lawrence  
514-46th Street, Brooklyn, N. Y.
- Marchelos, Stelios  
257 East 48th Street, New York, N. Y.
- Papernik, Herman  
450 West 45th Street, New York, N. Y.
- Perlman, Joseph Howard  
1460 East 4th Street, Brooklyn, N. Y.
- Piccoli, Salvatore Thomas  
94 East 208th Street, New York, N. Y.
- Pierz, Walter Roman  
537-59th Street, Brooklyn, N. Y.
- Posner, Arthur Seymour  
1061 St. Nicholas Avenue, New York, N. Y.
- Press, Harry  
12 Carlton Street, Holyoke, Mass.
- Rang, Irving Franklin  
697 Halsey Street, Brooklyn, N. Y.
- Ransford, Warren Richard  
116 West 69th Street, New York, N. Y.
- Ressler, David Murray  
420 East 13th Street, New York, N. Y.
- Rosenzweig, Albert Jacob  
459 Claremont Parkway, New York, N. Y.
- Rothman, Harry  
106 Watson Avenue, Newark, N. J.
- Saks, Nathan  
108 Mercer Street, Jersey City, N. J.
- Salesnick, Isidore  
993 Union Avenue, New York, N. Y.
- Sandor, Henry Randolph  
2885 Briggs Avenue, New York, N. Y.
- Schaffer, Sydney  
73 West 113th Street, New York, N. Y.
- Schwartz, Maurice  
1446-41st Street, Brooklyn, N. Y.
- Seidenstein, Morris  
601 West 172nd Street, New York, N. Y.
- Singer, Elkune Jechiel  
906 East 178th Street, New York, N. Y.
- Sorkin, Joseph  
9 East 107th Street, New York, N. Y.
- Spectorman, Harry  
967 Alden Street, New York, N. Y.
- Stein, Milton Arthur  
88 Second Avenue, Long Branch, N. J.
- Storck, Louis Eliot  
700 Main Street, New Rochelle, N. Y.
- Strick, Anna  
317 East 10th Street, New York, N. Y.
- Szel, Joseph 25 Arden Street, New York, N. Y.
- Tingley, Warren Albert  
33 High Street, Montrose, Pa.
- Tucker, Olivia Dalzell  
Warwick East, Spring Hill, Bermuda



Waterbury, Theodore  
170 West 73rd Street, New York, N. Y.  
Weidner, Joseph Bernard  
Oyster Bay, N. Y.  
Weissberger, Milton  
1821 Mohegan Avenue, New York, N. Y.

Wiseman, Charles  
1727 East 18th Street, Brooklyn, N. Y.  
Zimmerman, Israel  
2261-63rd Street, Brooklyn, N. Y.

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## REGISTER OF STUDENTS 1925-1926

## SENIOR UNIVERSITY CLASS

Braff, Alexander Elias  
106 Ridge Street, New York, N. Y.  
Hutchison, Emma (Mrs.) Memphis, Tenn.  
Macсата, William J.  
540 W. 189 Street, New York, N. Y.

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## JUNIOR UNIVERSITY CLASS

Adams, Joseph Edison  
63 Hopkins Ave., Jersey City, N. J.  
Alfieri, Joseph Domenic  
282 So. Main St., Waterbury, Conn.  
Bucci, Domenick  
136 Henderson St., Portchester, N. Y.  
Dimler, Marguerite Caroline  
104-9th Street, Hoboken, N. J.  
Failmezyer, Theodore Richard, Metuchen, N. J.  
Gutchin, Samuel  
66 Powell Street, Brooklyn, N. Y.  
Hauck, Rudolf Otto  
3511-34th Street, Jackson Heights, N. Y.  
Levin, Fred 77-12th Avenue, Paterson, N. J.  
Liberman, Samuel Solomon  
17 Attorney Street, New York, N. Y.  
Miale, Joseph Peter  
341 E. 16 Street, New York, N. Y.  
Milliman, George E.  
13 Upton Park, Rochester, N. Y.  
Pokorny, Frank Joseph  
52-15 Hospel St., Elmhurst, N. Y.  
Rang, Irving Franklin  
697 Halsey Street, Brooklyn, N. Y.  
Ricciardelli, Sylvia Helen  
241 Montgomery Street, Jersey City, N. J.  
Rovero, Elizabeth Rita  
304 E. 28th Street, New York, N. Y.  
Sabella, John Frank  
91 Church Ave., Brooklyn, N. Y.  
Sager, Julius  
95 West 41 Street, Bayonne, N. J.  
Triolo, Peter  
79 Jamaica Ave., Brooklyn, N. Y.  
Trumpler, Philip  
681 E. 221 Street, New York, N. Y.  
Vigliano, Mario Francis  
219 Grand Street, New York, N. Y.

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## SOPHOMORE UNIVERSITY CLASS

Ambrose, Dominick Bernard  
71 Congress Street, Newark, N. J.  
Anzelmi, Edward  
461 Rogers Avenue, Brooklyn, N. Y.  
Becker, Julius Linden  
756 Saratoga Avenue, Brooklyn, N. Y.  
Berkowitz, George  
1074 East Parkway, Brooklyn, N. Y.  
Bevacqua, Alfred  
298 Newark Avenue, Jersey City, N. J.  
Brunswick, Jerome Alfred  
119 E. 83 Street, New York City  
Buccino, Ralph Joseph  
307 Nicol Street, Bridgeport, Conn.  
Cody, Catherine Elizabeth  
94 Main Street, Canaan, Conn.  
Durfee, Olive  
333 Martin Street, San José, Cal.  
Emdin, Loftus Edward  
1556 Howard Avenue, Utica, N. Y.  
Goldberg, Julius  
20 Rutger's Place, New York, N. Y.  
Goldberg, Samuel  
213 Seigel Street, Brooklyn, N. Y.  
Goldin, Frank  
312 Van Nostrand Avenue, Jersey City, N. J.  
Grossmann, Mollie  
1040 Kelly Street, New York, N. Y.  
Guisado, Frank Edward  
100 Pineapple Street, Brooklyn, N. Y.  
Johnson, Eric P.  
211 E. 33 Street, New York, N. Y.  
Kitts, Edward Angermire  
Richfield Springs, N. Y.  
Litsky, Max  
72 Central Street, Ansonia, Conn.  
Malorofsky, David  
23 Suffolk Street, New York, N. Y.  
Mazilauskas, Edward T.  
58 Hotchkiss Street, Naugatuck, Conn.  
Mazlish, David J.  
137a DeKalb Avenue Jersey City, N. J.  
Moore, Ammon Maurice  
1135 E. Terrell Avenue, Ft. Worth, Tex.  
O'Brien, Samuel Graham  
14 Smith Street, Port Chester, N. Y.  
Papazian, Garabed Simon  
160 E. 62 Street, New York, N. Y.

Pospisil, Anton Joseph  
30-70 32 Street, Astoria, N. Y.

Prestia, Ignatius  
167 Graham Avenue, Brooklyn, N. Y.

Rizzuto, Joseph  
1065 DeKalb Avenue, Brooklyn, N. Y.

Rosenberg, Max  
875 Brooklyn Avenue, Brooklyn, N. Y.

Snyder, Rolland Stanley  
2543 Marion Avenue, New York, N. Y.

Sudakow, Morris  
111 Henwood Street, New York, N. Y.

Tewksbury, Rolland Humphrey  
99-7th Street, Bangor, Maine

Van Stone, Theodore Borden  
350 Main Street, Hackensack, N. J.

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## FRESHMAN UNIVERSITY CLASS

Abramowitz, Abraham  
60 E. 3 Street, New York, N. Y.

Achilson, Peter Lazarus  
2117 East 13 Street, Brooklyn, N. Y.

Adler, Alan 61 East 3 Street, Brooklyn, N. Y.

Allen, Namon  
Oakwood, Texas

Amatucci, Laura  
1984-84 Street, Brooklyn, N. Y.

Arkush, Mitchell Julius  
99 Bergenline Avenue, Union Hill, N. J.

Atkin, Nathan  
124 Beach 38 Street, Edgemere, N. Y.

Baiczer, Abraham Irving  
5 Goerck Street, New York, N. Y.

Becker, Herbert Chester  
777 Woodward Ave., Brooklyn, N. Y.

Beckerman, Sidney  
1697 Lexington Ave., New York, N. Y.

Benson, Mary Louise  
454 Church Street, Elmira, N. Y.

Biernoff, Joseph  
336 E. 81 Street, New York, N. Y.

Blatt, Maurice Joseph  
23 Montgomery Street, Newburgh, N. Y.

Brecher, Isaac  
547 West Side Ave., Jersey City, N. J.

Burch, Egbert A. St. Georges, Bermuda

Clott, George  
129 Stevens Avenue, Jersey City, N. J.

Cohen, George  
91 West 17 Street, Bayonne, N. J.

Cohen, Irving Samuel  
357 Mamaroneck Ave., Mamaroneck, N. Y.

Cohen, Morris  
82 Madison Street, New York, N. Y.

Cohen, Samuel  
2212 Surf Avenue, Brooklyn, N. Y.

Davenport, Renald  
Sweet Valley, Pa.

DeFusco, Rachel  
330 Newark Avenue, Jersey City, N. J.

Dick, Lester Colby  
Division Street, Keyport, N. Y.

DiMauro, Vincent Philip  
1326-58th Street, Brooklyn, N. Y.

Dixon, Wallace William  
815 Wilson Avenue, Chicago, Ill.

Droga, Simon  
680 Beck Street, New York, N. Y.

Drucker, David M.  
199 Forsyth Street, New York, N. Y.

Dubinsky, Isidore  
166 Avenue C, New York, N. Y.

Einhorn, Charles  
180 Riverdale Ave., Brooklyn, N. Y.

Eisenberg, Joseph  
194 York Street, Jersey City, N. J.

Eisner, Samuel  
747 E. 5 Street, New York, N. Y.

Epstein, Aaron  
345 Chester Street, Brooklyn, N. Y.

Epstein, George  
105 Nott Avenue, Long Island City, N. Y.

Fanelli, Domenick  
547-4th Avenue, Brooklyn, N. Y.

Gatov, Louis  
242 Claremont Avenue, Jersey City, N. J.

Gattuso, Charles  
22 Rivington Street, New York, N. Y.

Geronimus, Herman Joseph  
607 Barbey Street, Brooklyn, N. Y.

Giallombardo, Nicholas  
212 Avenue B, New York, N. Y.

Ginn, Barnett  
126 E. 7th Street, New York, N. Y.

Giordano, Herman  
376 Frankfort Street Orange, N. J.

Giovaneli, Dominic  
2376 Pacific Street, Brooklyn, N. Y.

Givens, Horace T. F.  
6 Cottage Place, Freehold, N. J.

Goldberg, Max  
1368 Myrtle Avenue, Brooklyn, N. Y.

Golden, Jonas  
11a Louis Place, Brooklyn, N. Y.

Goldman, Harry  
474 Warwick Street, Brooklyn, N. Y.

Grebel, Pincus  
51 Forsyth Street, New York, N. Y.

Greenblatt, Percy  
2441 Main Street, Stratford, Conn.

Gregorius, Ruth Anna  
Central Ave. and Rockaway Turnpike,  
Lawrence, N. Y.

Grodsky, Aa on  
422 Chestnut Street, Springfield, Mass.

Gross, Samuel  
424 E. 5 Street, New York, N. Y.

- Gussow, Charles Meyer  
1451 Crotona Place, New York, N. Y.
- Herman, Milton  
1464 Seabury Place, New York, N. Y.
- Hodes, Julius  
115 Wadsworth Avenue, New York, N. Y.
- Horin, Isadore Maynard  
69 Carroll Street, Jamaica, N. Y.
- Horowitz, Simon  
55 Willett Street, New York, N. Y.
- Hurwitz, Morris Herman  
30 Harper Street, Hartford, Conn.
- Johnson, Cornelius Lee  
828 Corgie Street, Cape May, N. J.
- Kandrat, Helen  
417 E. 25 Street, Brooklyn, N. Y.
- Kantrowitz, Israel  
181 Madison Street New York, N. Y.
- Kaplan, Frances Mildred      Amenia, N. Y.
- Kaplan, George  
866 Hunts Point Avenue, New York, N. Y.
- Katz, Sidney  
211 E. 105th Street, New York, N. Y.
- Katzowitz, Morris  
48 Ludlow Street, New York, N. Y.
- Keller, Joseph  
3258-25 Street, Jamaica Hgts., N. Y.
- Kibbe, August Geissel  
162 Egbert Avenue, W. New Brighton, N. Y.
- Klein, Samuel  
340 E. 4 Street, Brooklyn, N. Y.
- LaMaichia, Mildred Mary  
162 Day Street, New Haven, Conn.
- Lauri, Victor  
210 DeGraw Avenue, Brooklyn, N. Y.
- Learner, Benjamin  
7 Ridgely Place, Weehawken, N. J.
- Lebensart, Manning  
246 W. 25 Street, New York, N. Y.
- Lebrenz, George Frederick A.  
Cherry Lane and Westfield Ave., Teaneck, N. J.
- Leibowitz, Max  
423 Tompkins Avenue, Brooklyn, N. Y.
- Levinsohn, Arthur  
26 So. Bridge Street, Poughkeepsie, N. Y.
- Levy, Gussie Florence  
512 Blum Street, Town of Union, N. J.
- Lippe, Abraham Alfred  
916 Blake Avenue, Brooklyn, N. Y.
- Maggio, John Salvatore  
107 Ridgewood Avenue, Brooklyn, N. Y.
- Malinoff, Elias Alexander  
1640 Washington Ave., New York, N. Y.
- Marconi, Raphael, Jr.  
549 Anderson Avenue, Woodridge, N. J.
- Metlitz, Henry                      Nannet, N. Y.
- Michaels, Jacob  
1433 Bryant Avenue, New York, N. Y.
- Miller, Isidore Henry  
337 Ridge Avenue, Lakewood, N. J.
- Montemurro, Thomas  
531 Liberty Street, Union City, N. J.
- Moskovitz, Jerome Louis  
231 Norman Street, Bridgeport, Conn.
- Neuman, Harry  
215 Lawrence Place, Paterson, N. J.
- Neveloff, Aaron  
46 Hoyt Street, Brooklyn, N. Y.
- Ortega, Louis Bernard  
546 W. 147 Street, New York, N. Y.
- Palmera, Jerome John  
274 Third Street, Jersey City, N. J.
- Paulonis, Edward Peter  
1357 Bushwick Avenue, Brooklyn, N. Y.
- Peltz, Phillip William  
310-27th Street, Newport News, Va.
- Pessman, Abraham  
1934-71st Street, Brooklyn, N. Y.
- Pillone, Maria  
123 Lincoln Ave., Ridgefield Pk., N. J.
- Porte, Solomon  
2054-63rd Street, Brooklyn, N. Y.
- Pucci, Guido  
614 Hague Street, Union City, N. J.
- Rifkin, Isidor  
2026 Douglass Street, Brooklyn, N. Y.
- Rochelson, George  
1416 Stebbins Avenue, New York, N. Y.
- Rocker, Philip  
188 Allen Street, New York, N. Y.
- Rossi, Filomena Florence  
30 Macdougal Street, New York City
- Saldinger, Karl  
554 DeKalb Avenue, Brooklyn, N. Y.
- Schimmel, Moses  
3045 Ocean Parkway, Coney Island, N. Y.
- Schlagel, Charles Jacob  
18 Oak Street, Beacon, N. Y.
- Schmilowitz, Samuel  
445 Fulton Street, Jamaica, N. Y.
- Schmurok, Leon  
19 Sterling Place, Edgewater, N. J.
- Schopmann, William Henry  
103 Grace Street, Jersey City, N. J.
- Schultz, Joseph  
990 Aldus Street, New York, N. Y.
- Schutte, Bernard  
1837 Clinton Avenue, New York, N. Y.
- Schutzbank, Victor  
R. F. D. No. 3, Lakewood, N. J.
- Schwartz, Max  
1629 Lexington Avenue, New York, N. Y.
- Scowcroft, Ronald  
582 Craig Avenue, Tottenville, N. Y.
- Seng, John Warren  
107 Carroll Place, New Brunswick, N. J.
- Shapiro, Harry  
176 Riverdale Avenue, Brooklyn, N. Y.
- Siegel, Isidore  
203 E. 96th Street, New York, N. Y.

- Simon, Harry  
28 Gouverneur Street, New York, N. Y.
- Simon, Isidore Merenholz  
366 Hamilton Avenue, Paterson, N. J.
- Simone, Catharine Bellina  
Croton-on-Hudson, N. Y.
- Sobel, Joseph  
194 E. Main Street, Bridgeport, Conn.
- Spielman, Samuel  
884 Whitlock Avenue, New York, N. Y.
- Stauber Robert August  
R. D. No 15 Groton, N. Y.
- Steinberg, Abraham  
400 Sheffield Avenue, Brooklyn, N. Y.
- Sternberg, Morris  
9 Debevoise Street, Brooklyn, N. Y.
- Stock, George Thomas Pawling, N. Y.
- Thierer, Lionel Louis  
831 E. 163 Street, New York, N. Y.
- Tiesler, Adolph Edward Pleasantville, N. Y.
- Tisch, Leo  
1411 Madison Avenue, New York, N. Y.
- Topilow, Jacob  
155 W. 29 Street, Bayonne, N. J.
- Tuchband, Louis  
Arlington Avenue, Bergenfield, N. J.
- Vanderman, Joseph  
22 Roseland Avenue, Waterbury, Conn.
- Warren, Cameron Clyde  
30 Walkill Avenue, Middletown, N. Y.
- Weisman, Isadore  
37 Kingsbury Street, Waterbury, Conn.
- Weiss, Harry  
1447 Longfellow Avenue, New York, N. Y.
- Yablonoewitz, Abraham  
1 East 112th Street, New York, N. Y.
- Zabner, Jacob  
954 Hoe Avenue, New York, N. Y.
- (131)
- SECOND YEAR COLLEGE CLASS
- Abbate, Rosario  
182 Cooper Street, Brooklyn, N. Y.
- Abeloff, Aaron H.  
125 No. White Street, Shenandoah, Pa.
- Abrahamson, Abraham E.  
133 Avenue D, New York, N. Y.
- Adler, Max Emanuel  
228 East 99 Street, New York, N. Y.
- Adrezin, Edward  
405 Hinsdale Street, Brooklyn, N. Y.
- Aizerman, Jack  
104 East 2 Street, New York, N. Y.
- Allahut, Max  
250 Penn Street, Brooklyn, N. Y.
- Allen, Solomon Samuel  
860 E. 161 Street, New York, N. Y.
- Baderman, Michael  
33 Avenue D, New York, N. Y.
- Bankoff, Nathan  
230 Monroe Street, New York, N. Y.
- Bard, Aaron  
1681 Vyse Street, New York, N. Y.
- Baron, Harry  
1352 St. Nicholas Avenue, New York, N. Y.
- Barreca, James Vincent  
25 Forsyth Street, New York, N. Y.
- Baum, Jonathan  
142 Morton Place, New York, N. Y.
- Beck, Sam  
140 Trenton Avenue, White Plains, N. Y.
- Beeber, Morris  
134 Clymer Street, Brooklyn, N. Y.
- Bellis, Bernard  
55 Clinton Place, New York, N. Y.
- Bennett, Marian  
950 Marcy Avenue, Brooklyn, N. Y.
- Berg, Henry  
169 E. 105 Street, New York, N. Y.
- Berkowitz, Samuel  
36 Bristol Street, Brooklyn, N. Y.
- Bleifeld, Solomon  
555 Linwood Street, Brooklyn, N. Y.
- Bode, Emma  
120 French Street, New Brunswick, N. J.
- Bonanno, Michael  
2120 Jerome Avenue, New York, N. Y.
- Borsuk, Irving M.  
2348 Benson Avenue, Brooklyn, N. Y.
- Bregman, Alexander  
128 East 104 Street, New York, N. Y.
- Brodawsky, Isador  
530 East 134 Street, New York, N. Y.
- Brooks, Solomon  
2131 Ocean Ave., Brooklyn, N. Y.
- Brown, Emanuel  
2918 Fulton Street, Brooklyn, N. Y.
- Brownstein, Samuel Hyman  
38 Seigel Street, Brooklyn, N. Y.
- Buckley, James Edwin  
10 Cedar Street, Bangor, Maine
- Canter, Herbert B.  
1890-7th Avenue, New York City
- Cantor, Louis Harry  
340 Pleasant Street, Gardner, Mass.
- Cappelli, Antoinette  
524 Wetmore Street, Utica, N. Y.
- Chary, Philip 70 Grafton Street, Brooklyn, N. Y.
- Chryn, Julius S.  
1565 Grand Concourse, New York, N. Y.
- Chudnowsky, David  
3009 Cooper Avenue, Glendale, N. Y.
- Chuisano, Pasquale  
34 Bennington Avenue, Freeport, N. Y.
- Cipes, Leo R.  
694 Melrose Avenue, New York, N. Y.
- Clericuzio, Thomas  
517 Lincoln Street, Union City, N. J.

- Cohen, Abraham Irving  
569 VanSicklen Avenue, Brooklyn, N. Y.
- Cohen, Philip  
80-5th Avenue, Long Branch, N. J.
- Cohn, George  
264 Hamilton Avenue, Paterson, N. J.
- Connors, Edward D.  
205 Rockwell Avenue, Long Branch, N. J.
- Cooper, Jack  
3885 Bedford Avenue, Brooklyn, N. Y.
- Coronato, Joseph J.  
168 Hope Avenue, Rosebank, N. Y.
- Crystal, Adam  
113 Floyd Street, Brooklyn, N. Y.
- Cutler, George  
1268 Spoffard Avenue, New York, N. Y.
- Cutler, Samuel Melvin  
1268 Spoffard Avenue, New York, N. Y.
- DeCesare, Nicholas  
70 New Chambers Street, New York, N. Y.
- Deutsch, David  
85 Lewis Street, New York, N. Y.
- Diamond, Joseph  
375 Beekman Avenue, New York, N. Y.
- DiBitetto, Frank Robert  
1878-63 Street, Brooklyn, N. Y.
- Diliberto, Paul Joseph  
30 St. Jerome Avenue, Holyoke, Mass.
- DiMattina, Bartholomew  
226 DeGraw Street, Brooklyn, N. Y.
- DiTolla, Alfred  
370 Hallett Street, Astoria, N. Y.
- Divisek, Frank  
433 E. 75 Street, New York, N. Y.
- Drach, Isidore  
251 West 145 Street, New York, N. Y.
- Dreyer, Isaac  
226 E. Broadway, New York, N. Y.
- Drosness, Benjamin  
1580 E. Parkway, Brooklyn, N. Y.
- Dunst, Morris  
404 West 44 Street, New York, N. Y.
- Durst, Benjamin  
264 East 2 Street, New York, N. Y.
- Edlich, Adolph A.  
361 East 50 Street, New York, N. Y.
- Egale, William  
186 Ludlow Street, New York, N. Y.
- Eglichen, Nathan  
1604 Madison Avenue, New York, N. Y.
- Ehrlich, Edward  
338 Avenue A, Bayonne, N. J.
- Ehrlich, Louis  
193 Highland Blvd., Brooklyn, N. Y.
- Eisen, Nathan  
1557 St. Mark's Avenue, Brooklyn, N. Y.
- Essner, Isidore  
382 So. 3 Street, Brooklyn, N. Y.
- Eyskens, Leo Joseph  
618 Washington Street, Hoboken, N. J.
- Fankuchen, Irving  
1302 Carroll Street, Brooklyn, N. Y.
- Fein, Ely  
150 West 123 Street, New York, N. Y.
- Feinberg, Harry Isadore  
340 Ellery Street, Brooklyn, N. Y.
- Fekler, Manes  
229 Stockton Street, Brooklyn, N. Y.
- Feldman, Boris  
2609 Briggs Avenue, New York, N. Y.
- Feller, Henry  
1886 Douglass Street, Brooklyn, N. Y.
- Fisher, Joseph H.  
932 Kelly Street, New York, N. Y.
- Florin, Sidney  
622 Ocean Parkway, Brooklyn, N. Y.
- Folcarelli, Urbino E. G.  
108 East 87 Street, New York, N. Y.
- Fox, Louis Asir  
24-10 Street, W. New York, N. J.
- Friedbauer, Lewis M.  
203 Park Avenue, Passaic, N. J.
- Friedman, Gustav  
1054 Avenue C, Bayonne, N. J.
- Friedman, Louis  
72 East 110 Street, New York, N. Y.
- Friedman, Philip  
312 East 8 Street, New York, N. Y.
- Fuchs, Isidore  
604 East 9 Street, New York, N. Y.
- Galluzzo, Rose  
1082 Longfellow Avenue, New York, N. Y.
- Garfinkle, Howard  
48 East 15 Street, Bayonne, N. J.
- Gavlas, Frank E.  
1476 E. Main Street, Bridgeport, Conn.
- Giannunzio, Vincent J.  
Box 190, Mamaroneck, N. Y.
- Gillette, Samuel  
85 Madison Avenue, Bridgeport, Conn.
- Ginsberg, David  
91 Woodruff Avenue, Brooklyn, N. Y.
- Glickman, Osias  
349 So. 4 Street, Brooklyn, N. Y.
- Gluckman, Mark L.  
195 Bay 29 Street, Brooklyn, N. Y.
- Gold, Charles  
510 Marion Street, Brooklyn, N. Y.
- Gold, Herbert  
221 East 121 Street, New York, N. Y.
- Goldblatt, Harold  
768 Fox Street, New York, N. Y.
- Goldfarb, Louis  
1346 Fulton Avenue, New York City
- Goldin, Noah  
711 Ralph Avenue, Brooklyn, N. Y.
- Goldsmith, Jacob  
56 Second Avenue, New York, N. Y.
- Goldstein, Archie  
107-21-117 Street, Richmond Hill, N. Y.

- Goldstein, Isidore Jacob  
527 Hinsdale Street, Brooklyn, N. Y.
- Goldstein, William Morris Monticello, N. Y.
- Goliger, Morris  
2069-60 Street, Brooklyn, N. Y.
- Gottlieb, Eugene  
64½ West 181 Street, New York, N. Y.
- Gottlieb, Hyman L.  
830 Belmont Avenue, Brooklyn, N. Y.
- Gottlieb, Louis Tannersville, N. Y.
- Govendy, Morris  
219 East 121 Street, New York, N. Y.
- Granata, James Innocenzo  
59 Bowers Street, Jersey City, N. J.
- Gratt, Michael  
957 Rogers Place, New York, N. Y.
- Gray, Donald Arthur  
1517 Neilson Street, Utica, N. Y.
- Greek, James  
528 Main Street, Union City, N. J.
- Greenberg, Lillian R.  
113 Broome Street, New York, N. Y.
- Greenberg, Morris Milton  
58 John Street, New Brunswick, N. J.
- Greenstein, Murray  
106 Marcy Place, New York, N. Y.
- Grosman, Abraham  
985 E. Tremont Avenue, New York, N. Y.
- Hall, Charles Dixon  
10 Hartwell Street, New Brunswick, N. J.
- Hamburger, Hyman  
229 East 103 Street, New York, N. Y.
- Harris, Joseph  
775 E. 2 Street, Brooklyn, N. Y.
- Hashinsky, Edward  
488 Snediker Avenue, Brooklyn, N. Y.
- Hawkins, Ralph  
134 West 133 Street, New York City
- Hershkowitz, Leo  
1345 Brook Avenue, New York, N. Y.
- Herzog, Herman Joseph  
1208-51 Street, Brooklyn, N. Y.
- Hillmer, Walter Joseph  
328 East 43 Street, New York, N. Y.
- Holmes, Herbert Cresskill, N. J.
- Hummel, Peter Anthony  
261 French Street, New Brunswick, N. J.
- Hunt, William Edgar  
99 Bedford Road, Pleasantville, N. Y.
- Hurwitz, Abe  
22 Van Buren Street, Syracuse, N. Y.
- Isaacs, Irving Louis  
1046 E 29 Street, Brooklyn, N. Y.
- Jacobson, Louis Malcolm  
43 Sylvan Avenue, New Haven, Conn.
- Joffe, Abram Edward  
350 Belmont Avenue, Paterson, N. J.
- Kaner, Paul  
332 East 18 Street, New York, N. Y.
- Kantrowitz, Morris  
1551 So. Boulevard, New York, N. Y.
- Karasick, Abraham  
55 Cuba Place, Rochester, N. Y.
- Karmazin, Stanley  
1355 E. 9 Street, Brooklyn, N. Y.
- Kasday, Moe  
97-52 Corona Avenue, Corona, N. Y.
- Katz, Benjamin  
1956-69 Street, Brooklyn, N. Y.
- Katzman, Louis  
381 Grand Street, New York, N. Y.
- Kaufman, Howard  
1129 Vyse Avenue, New York, N. Y.
- Kessler, Nathan  
26 Fayette Street, Brooklyn, N. Y.
- Kirschstein, Nathan  
100 Keap Street, Brooklyn, N. Y.
- Klappert, Samuel  
790 Riverside Drive, New York, N. Y.
- Koch, Leo Bernard  
219 East 28 Street, New York, N. Y.
- Koloditzky, Frances  
261 Broome Street, New York, N. Y.
- Kornfeld, Abraham  
1606 Park Place, Brooklyn, N. Y.
- Koslosky, Henry  
366 Kingston Avenue, Brooklyn, N. Y.
- Koslow, Nathan Robert  
1948 Prospect Avenue, New York, N. Y.
- Kossove, Sidney  
1267-40 Street, Brooklyn, N. Y.
- Krell, Sara 73 So. 9 Street, Brooklyn, N. Y.
- Krichev, Barney  
2160 Bath Avenue, Brooklyn, N. Y.
- Kroe, Andrew  
835 Beck Street, New York, N. Y.
- Laites, Monio  
491 Main Street, Ansonia, Conn.
- Lang, Albert Bela  
767 East 156 Street, New York, N. Y.
- Langheinz, Louis E. G.  
857 Elizabeth Avenue, Elizabeth, N. J.
- LaSala, Charles  
782 Madison Street, Brooklyn, N. Y.
- Lasky, Reuben  
59 Herman Street, Rochester, N. Y.
- Lauri, Michael A.  
180 Hooker Place, Port Richmond, N. Y.
- Lazarowitz, Mae  
382 Georgia Avenue, Brooklyn, N. Y.
- Leader, Louis M.  
145 North Street, Bennington, Vt.
- Lebediger, Samuel  
579 Wyona Street, Brooklyn, N. Y.
- Lee, Anderson F.  
2324-8th Avenue, New York, N. Y.
- Lefkowitz, Sidney  
109 So. 51 Street, Corona, N. Y.

- Lerner, Isidore  
1723-77th Street, Brooklyn, N. Y.
- Levine, Marguerite A.  
5002-16 Avenue, Brooklyn, N. Y.
- Levine, Sophie Box 82, Ashley Falls, Mass.
- Levitt, Solomon  
180 Varet Street, Brooklyn, N. Y.
- Levy, Louis 512 Blum Street, Union Hill, N. J.
- Levy, Morris Jack  
22 Prospect Park S. W. Brooklyn, N. Y.
- Liebowitz, David  
280 So. 3 Street, Brooklyn, N. Y.
- Lipkin, Alexander  
774 Park Avenue, W. New York, N. J.
- Lipschetz, Simon  
185 Ferry Street, New Haven, Conn.
- Lipsett, Harold  
549 W. 163 Street, New York City
- Loomis, George Meade  
371 Park Street, Fulton, N. Y.
- Lopez de Victoria, Jose  
965 Lexington Avenue, New York, N. Y.
- Lopresti, Frances  
60 Cedar Avenue, Long Branch, N. J.
- Lupinacci, Joseph  
327 East 113 Street, New York, N. Y.
- Lyons, James Kill Avenue, Butler, N. J.
- McGill, James F.  
611 E. 83 Street, New York City
- Maline, John  
130 Essex Street, Jersey City, N. J.
- Mandel, Jacob  
41 Forsyth Street, New York, N. Y.
- Mandel, Nathan  
400 E. Houston Street, New York, N. Y.
- Manheimer, Raymond B.  
300 West 108 Street, New York, N. Y.
- Marcus, Sam  
10 Meadow Street, Kingston, N. Y.
- Margolis, Joseph Samuel  
1740 Weeks Avenue, New York, N. Y.
- Margulies, Harry Philip  
26 Bergen Avenue, Jersey City, N. J.
- Martin, Naomi Amy  
Westhampton Beach, N. Y.
- Mauro, Thomas Joseph  
111 Park Ave., Elberon, N. J.
- Megibow, Joseph  
501 Palisade Ave. W. New York, N. J.
- Miller, Henry M.  
28 Ibis Street, Forest Hills, N. Y.
- Millman, Morris  
5624-8th Avenue, Brooklyn, N. Y.
- Mininberg, Meyer  
863 Beck Street, New York, N. Y.
- Mintzer, Morris Louis  
177 Intervale Avenue, Burlington, Vt.
- Mistretta, Peter  
1715-73 Street, Brooklyn, N. Y.
- Morrow, Hazel  
95 Atlantic Street, Jersey City, N. J.
- Mouber, Isaac  
59 East 118 Street, New York, N. Y.
- Murger, William  
418 Georgia Avenue, Brooklyn, N. Y.
- Nava, Dominick  
226 Carroll Street, Brooklyn, N. Y.
- Nelson, Isaac  
Yarmouth, Nova Scotia, Can.
- Newberger, Max  
568 So. 19 Street, Newark, N. J.
- Newman, Barnett  
90 Grafton Street, Brooklyn, N. Y.
- Newman, Irving  
369 Second Street, Brooklyn, N. Y.
- Nigrine, Nissim H.  
1465 Fifth Avenue, New York, N. Y.
- Ochetell, Aaron  
677 Beck Street, New York, N. Y.
- O'Connor, Joseph John  
485 Monroe Avenue, Elizabeth, N. J.
- Oring, Joseph David  
461 East 144 Street, New York, N. Y.
- Osterweil, Jacob  
12 West 113 Street, New York, N. Y.
- Padwisocka, Louis K.  
412 Hegeman Avenue, Brooklyn, N. Y.
- Pelletiria, Salvatore A.  
629 Broadway, Brooklyn, N. Y.
- Perman, Morris  
948 Union Avenue, New York, N. Y.
- Perrella, William Camilla  
1903 Avenue U, Brooklyn, N. Y.
- Perrine, Peter W.  
6408-15th Avenue, Brooklyn, N. Y.
- Peshkin, Gershon  
33 Guilden Street, New Brunswick, N. J.
- Pierri, Esther  
36-27 Academy Street, Astoria, N. Y.
- Pillitteri, Frances  
1702 Lexington Avenue, New York City
- Pitts, William Milton  
137 West 142 Street, New York, N. Y.
- Pollock, Lawrence  
1640 University Avenue, New York, N. Y.
- Porgoman, Lena  
205 St. Paul's Avenue, Jersey City, N. J.
- Posner, Julius  
1209 West 6 Street, Sioux City, Iowa
- Prunier, Louis B. Lake Placid, N. Y.
- Rabinowitz, David  
716 East 5 Street, New York, N. Y.
- Rabinowitz, Jacob  
57 Shpoler Avenue, Corona, N. Y.
- Rabinowitz, Rubin Louis  
118 Oak Street, Hazelton, Pa.
- Raphael, Israel  
2363 Valentine Avenue, New York, N. Y.

- Reese, William L.  
262 E. Broadway, New York, N. Y.
- Reinstein, Leon  
97 Lee Avenue, Brooklyn, N. Y.
- Resner, Israel  
710 East 5 Street, New York, N. Y.
- Rheinstein, Harry Jacob  
163 E. 94 Street, Brooklyn, N. Y.
- Richards, James Lobb Port Jervis, N. Y.
- Richman, Louis  
187 Grafton Street, Brooklyn, N. Y.
- Rimer, Max  
320 East 91 Street, New York, N. Y.
- Rippner, Philip  
18 Lawrence Street, So. Norwalk, Conn.
- Risberg, Leo Joseph  
118 West 109 Street, New York, N. Y.
- Rodman, Morris  
43 Grafton Street, Brooklyn, N. Y.
- Roman, Joseph George  
15 W. Henry Street, Stamford, Conn.
- Rosenberg, Manuel Morton  
314 Wilkins Street, Rochester, N. Y.
- Rosenblat, Samuel Jack  
88 East 111 Street, New York, N. Y.
- Rosenblum, Ben  
348 Avenue C, Bayonne, N. J.
- Rosenfeld, William  
6 West 98 Street, New York, N. Y.
- Rosenstein, Hyman  
1153-41 Street, Brooklyn, N. Y.
- Royal, Solomon  
386 Hillside Avenue, Jamaica, N. Y.
- Sacco, Leonard G.  
123 So. 7 Avenue, Long Branch, N. J.
- Salem, Louis H.  
3705-64 Street, Woodside, N. Y.
- Salutsky, Isidore  
70 Wilson Street, Brooklyn, N. Y.
- Sasse, Henry Alois  
315 East 58 Street, New York, N. Y.
- Schine, Samuel  
697 Pembroke Street, Bridgeport, Conn.
- Schneider, William Edward  
830 Saratoga Avenue, Brooklyn, N. Y.
- Schwartz, Benjamin  
217 Bristol Street, Brooklyn, N. Y.
- Schwartz, Jack  
329 Graham Avenue, Brooklyn, N. Y.
- Schwartz, Paul  
16 Wayne Street, Middle Village, N. Y.
- Segal, Norman  
932 Kelly Street, New York, N. Y.
- Seider, Solomon  
86 West 183 Street, New York, N. Y.
- Seiler, Albert  
137-7th Avenue, Brooklyn, N. Y.
- Sepkaski, Paul  
65 Canal Street, Ansonia, Conn.
- Sewell, Milton Dulany  
117 Palisade Avenue, Jersey City, N. J.
- Shamus, Leon  
509 E. Raynor Avenue, Syracuse, N. Y.
- Shenit, Harry  
347 Bradford Street, Brooklyn, N. Y.
- Sherman, Irving  
318 East 100 Street, New York, N. Y.
- Shulman, Jack  
132 William Street, Perth Amboy, N. J.
- Siegle, Edward  
63 Forsyth Street, New York, N. Y.
- Siegle, Irving  
520 Broadway, Bayonne, N. J.
- Silberquit, Paul  
217 Pennsylvania Avenue, Brooklyn, N. Y.
- Silver, Samuel Robert  
2077-60 Street, Brooklyn, N. Y.
- Silverman, Jack  
177 East 100 Street, New York, N. Y.
- Silverman, Jacob  
258 Palisade Avenue, Jersey City, N. J.
- Simrin, Leonard Greenfield, N. Y.
- Sinakin, Richard Max  
404 Palisade Avenue, Jersey City, N. J.
- Singer, Abraham  
1424 Bryant Avenue, New York, N. Y.
- Sirkus, John  
640 Blake Avenue, Brooklyn, N. Y.
- Smith, Irving Hugh  
9 Morningside Avenue, Montclair, N. J.
- Smith, Lawrence  
2072-61st Street, Brooklyn, N. Y.
- Smith, Robert Reuben  
2072-61st Street, Brooklyn, N. Y.
- Sobell, Martin L.  
729 Kelly Street, New York, N. Y.
- Soriano, Charles  
51 Thompson Street, Raritan, N. J.
- Sowersby, Winford E.  
66 West 1st Street, Mt. Vernon, N. Y.
- Spector, George  
118 So. 11 Avenue, Maywood, Ill.
- Spellman, Glenn J.  
2537 Valentine Avenue, New York, N. Y.
- Spevack, Samuel William  
369 New Street, Perth Amboy, N. J.
- Stahl, Charles William  
204 Delancey Street, New York, N. Y.
- Steele, Nathan  
483 East 170 Street, New York, N. Y.
- Steinfeld, William M.  
81 Avenue C, New York, N. Y.
- Stelmah, Samuel  
1687 Vyse Avenue, New York, N. Y.
- Stenger, Harry C.  
1862 Grove Street, Brooklyn, N. Y.
- Stern, Morris  
336 Prospect Street, Perth Amboy, N. J.



- Stitelman, Hyman  
1712 Bath Avenue, Brooklyn, N. Y.
- Stockvis, George G.  
146 East 74 Street, New York, N. Y.
- Strauss, Joseph  
130 West 195 Street, New York, N. Y.
- Sudnow, Isidore  
24 East 99 Street, New York, N. Y.
- Sukenik, Harry  
1848 Monroe Avenue, New York, N. Y.
- Tamaro, Joseph Irving  
2 Rockledge Avenue, Ossining, N. Y.
- Tanklefsky, Arthur  
1219 Gilbert Place, New York, N. Y.
- Taubert, Charles Frederick  
604 No. Locust Street, Hazelton, Pa.
- Teitelbaum, Bertha  
195 Broad Street, Stapleton, N. Y.
- Thorner, Isidor  
90 Morton Street, Brooklyn, N. Y.
- Tittler, Murray  
2142 Atlantic Avenue, Brooklyn, N. Y.
- Tornow, Abraham M.  
110 Orient Avenue, Jersey City, N. J.
- Trapani, Salvator  
8657 Bay 16th Street, Brooklyn, N. Y.
- Tulchinsky, Moses Bernard  
205 Bay 29 Street, Brooklyn, N. Y.
- Tuvim, Abraham A.  
7 West 112 Street, New York, N. Y.
- Valenti, James Joseph  
551-2nd Avenue, New York, N. Y.
- Venickoff, Solomon  
911 Longwood Avenue, New York, N. Y.
- Volkovitsky, Benzion K.  
364 Palisade Avenue, Jersey City, N. J.
- Waldinger, Leo  
150 Keap Street, Brooklyn, N. Y.
- Waldman, Sidney  
34 No. Grant Street, Wilkes-Barre, Pa.
- Wandruff, Benjamin  
2076 Bryant Avenue, New York, N. Y.
- Waxman, Isaac  
112 Goerck Street, New York, N. Y.
- Weiswasser, David  
1457 Eastern P'kway, Brooklyn, N. Y.
- Weltman, Louise  
486 East 138 Street, New York, N. Y.
- Wexler, David  
614 East 11 Street, New York, N. Y.
- Wiener, Max  
35 Clinton Street, Paterson, N. J.
- Wilensky, Morris  
52<sup>1</sup>/<sub>2</sub> Stephen Street, New Haven, Conn.
- Winer, Russell  
442 East 9 Street, New York, N. Y.
- Wininger, Samuel  
2226 Adams Place, New York, N. Y.
- Wolf, David  
860 Whitlock Avenue, New York, N. Y.
- Young, William  
324 Snediker Avenue, Brooklyn, N. Y.
- Youngstein, Elias  
403 Manhattan Avenue, New York, N. Y.
- Zalowitz, Morris Daniel  
86 Marshall Street, Elizabeth, N. J.
- Zeichner, Isadore  
226 Adam Street, Hoboken, N. J.
- Zelnick, Isidore  
321-12 Street, New York, N. Y.
- Zimmerman, William  
108 West 90 Street, New York, N. Y.
- Zutler, Elias  
112 West 61 Street, New York, N. Y.
- Zwillich, Ignatz  
801 Freeman Street, New York, N. Y.

(319)

## FIRST YEAR COLLEGE CLASS

- Acierno, Claude  
153 Lake Street, Brooklyn, N. Y.
- Ackerman, Leo  
915 East 15 Street, Brooklyn, N. Y.
- Adler, Max Abraham  
602 East 11 Street, New York, N. Y.
- Allen, Abraham  
860 East 161 Street, New York, N. Y.
- Alpert, Jacob Joseph  
992 Trinity Avenue, New York, N. Y.
- Amtman, Rudolph  
1450 Clay Avenue, New York, N. Y.
- Averbach, Abraham Irwin  
1741 Sterling Place, Brooklyn, N. Y.
- Baer, Philip  
1575 Park Place, Brooklyn, N. Y.
- Balotin, Joel  
Ellenville, N. Y.
- Becker, Abraham  
836 New Lots Avenue, Brooklyn, N. Y.
- Berinsky, Abraham  
1531 Sputhern Blvd., New York, N. Y.
- Berler, Abraham  
546 New Jersey Avenue, Brooklyn, N. Y.
- Berlin, Henry  
338 Broadway, Saratoga Springs, N. Y.
- Berman, Louis  
33 Avenue A, New York, N. Y.
- Bernstein, Nathan  
2532 Elmore Place, Brooklyn, N. Y.
- Bernstein, Philip  
766 Ninth Avenue, New York, N. Y.
- Bezahler, Charles  
255 Seventh Street, New York, N. Y.
- Bianco, William  
415 So. 5th Street, Brooklyn, N. Y.
- Bikofsky, Louis  
313 East 170 Street, New York, N. Y.
- Bindersky, Morris Louis  
1463 St. Marks Avenue, Brooklyn, N. Y.
- Blank, Samuel  
234 East 3rd Street, New York, N. Y.

- Blatman, Leo  
221 E. Broadway, New York, N. Y.
- Blaunstein, Harry  
786 East 165 Street, New York, N. Y.
- Bloom, Morris  
96 Bay 17th Street, Brooklyn, N. Y.
- Bogopolsky, Jacob  
225 East 110 Street, New York, N. Y.
- Bonaccolto, Ada  
322 Second Avenue, New York, N. Y.
- Bookchin, Benjamin  
23 Harvard Court, Brighton Beach, N. Y.
- Botfeld, Louis  
32 Stanwix Street, Brooklyn, N. Y.
- Bousel, Morris  
1443 Washington Avenue, New York, N. Y.
- Brodsky, Samuel  
64 East 103 Street, New York, N. Y.
- Brook, Max  
251 Michigan Avenue, Mobile, Ala.
- Brotman, Sam  
147 Stanton Street, New York, N. Y.
- Cantor, Jacob Alvin  
340 Pleasant Street, Gardner, Mass.
- Cernik, Joseph John  
311 East 73 Street, New York, N. Y.
- Chalian, Alexander  
1468 St. Nicholas Avenue, New York, N. Y.
- Cohen, Harry Lewis  
611½ Calder Street, Harrisburg, Pa.
- Cohen, Michael  
602 Pennsylvania Ave., Brooklyn, N. Y.
- Columbus, Leo  
307 West 71 Street, New York, N. Y.
- Cona, Josephine  
182 So. Center Street, Orange, N. J.
- Cooper, Israel  
3885 Bedford Avenue, Brooklyn, N. Y.
- Cooper, Julius Sussman  
72 Spring Street, Norwich, Conn.
- Czmor, Bela Michael  
236 Bragaw Street, Long Island City, N. Y.
- DeCicco, Anthony Charles  
10 Hall Street, Brooklyn, N. Y.
- Deitz, Martin David  
37 So. Main Street, Norwalk, Conn.
- Devoe, Floyd  
43 Ellis Place, Ossining, N. Y.
- Diamond, Rudolph  
2 East 108 Street, New York, N. Y.
- Dickson, Martin  
262 Seigel Street, Brooklyn, N. Y.
- Dinitz, Charles  
96 McKibben Street, Brooklyn, N. Y.
- Donenhirsh, Louis  
74-76 Chrystie Street, New York, N. Y.
- Dreizin, Gersh Kuselev Abramov  
1704 Mermaid Avenue, Brooklyn, N. Y.
- Durst, Samuel Isidore  
264-2nd Street, New York, N. Y.
- Edelman, Benjamin  
1084 Gerard Avenue, New York, N. Y.
- Eichenbaum, Samuel  
235 East 103 Street, New York, N. Y.
- Elkind, Joseph Benjamin  
15 Overlook Terrace, Yonkers, N. Y.
- Etkins, Abraham  
2161 Douglass Street, Brooklyn, N. Y.
- Fass, Morris  
51 East 109 Street, New York, N. Y.
- Fenster, Moe  
104 Lenox Avenue, New York, N. Y.
- Fiertel, Israel David  
151 Suffolk Street, New York, N. Y.
- Fishman, Fannie  
427 Kingston Avenue, Brooklyn, N. Y.
- Fragar, Joseph Saul  
35 Johnston Street, Newburgh, N. Y.
- Frankel, Ezra  
140 Stanton Street, New York, N. Y.
- Friedman, Morris  
50 East 100 Street, New York, N. Y.
- Gellis, Mark Romeo  
334 East 15 Street, New York, N. Y.
- Gilbert, Charles  
217 Madison Street, New York, N. Y.
- Ginnis, Louis  
1849-66th Street, Brooklyn, N. Y.
- Glassman, Louis  
101 Straight Street, Paterson, N. J.
- Goldenberg, Harry  
404 Georgia Avenue, Brooklyn, N. Y.
- Goldfarb, Harold  
1011 Belmont Avenue, Brooklyn, N. Y.
- Goldfield, Max  
270 Windsor Avenue, Hartford, Conn.
- Goldman, Hirsh Jacob  
200 Vernon Avenue, Brooklyn, N. Y.
- Goldman, Pincus  
24 East 99th Street, New York, N. Y.
- Goldstein, Meyer  
292 Hinsdale Street, Brooklyn, N. Y.
- Goldwasser, Abraham  
555 Bushwick Avenue, Brooklyn, N. Y.
- Goodwich, Paul  
32 Kingsbury Street, Waterbury, Conn.
- Gordon, William  
1366 Brook Avenue, New York, N. Y.
- Gorga, Alfonso  
281 Hudson Avenue, Brooklyn, N. Y.
- Gottheil, David Isidore  
1851 Bathgate Avenue, New York, N. Y.
- Greenberg, Samuel  
719 Sackman Street, Brooklyn, N. Y.
- Grobifker, William  
1548 East 4 Street, Brooklyn, N. Y.
- Grogin, James Isidor  
1031-54th Street, Brooklyn, N. Y.
- Gullo, Nancy  
148 Hester Street, New York, N. Y.

- Haase, Milton  
2123 Tiebout Avenue, New York, N. Y.
- Hacker, Louis  
709 East 5 Street, New York, N. Y.
- Haiken, Benjamin  
822 Beck Street, Brooklyn, N. Y.
- Hammecker, Morton Martin  
1500 W. Genesee Street, Syracuse, N. Y.
- Heller, Aaron  
1766 Bergen Street, Brooklyn, N. Y.
- Hertzoff, Max  
1533 Morris Avenue, New York, N. Y.
- Hillinger, Morris William  
2922 La Salle Avenue, Los Angeles, Cal.
- Honiberg, Aaron David  
254 Windsor Avenue, Hartford, Conn.
- Howard, Charles Francis  
39 Dewey Avenue, Huntington, N. Y.
- Hurvitz, Mrs. Jennie  
797 Crotona Park, New York, N. Y.
- Irvin, Vera  
18 West 138 Street, New York, N. Y.
- Isaacs, Melville  
53 West 114 Street, New York, N. Y.
- Isaacson, Harry  
2141 Homecrest Avenue, Brooklyn, N. Y.
- Israel, Max  
120 East 110 Street, New York, N. Y.
- Jospey, Milton  
17 Beach 37 Street, Edgemere, N. Y.
- Kanfer, Daniel  
140 Wilson Street, Brooklyn, N. Y.
- Kaplan, Jonah  
691 Van Sicklen Avenue, Brooklyn, N. Y.
- Kaplan, Morris  
1420-43 Street, Brooklyn, N. Y.
- Kaplan, Robert  
628 Vermont Street, Brooklyn, N. Y.
- Karp, Solomon  
243 Cherry Street, New York, N. Y.
- Karpf, Bernard  
1509 Charlotte Street, New York, N. Y.
- Katz, Emanuel  
419 East Houston Street, New York, N. Y.
- Katz, Pearl Lloyd  
638 Ninth Street, Milwaukee, Wis.
- Kaufman, Charles  
569 Saratoga Avenue, Brooklyn, N. Y.
- Keegan, James John  
Ferndale, N. Y.
- Kessler, Harry  
2179 Washington Avenue, New York, N. Y.
- Kessler, Selig Ezra  
1715 Lexington Avenue, New York, N. Y.
- Kirschner, Charles Israel  
159 So. 4th Street, Brooklyn, N. Y.
- Klein, Isidore  
433 East 138 Street, New York, N. Y.
- Klein, Joseph  
720 East 9 Street, New York, N. Y.
- Koch, Karl  
219 East 28 Street, New York, N. Y.
- Kolber, Samuel W.  
252 Driggs Avenue, Brooklyn, N. Y.
- Koslowsky, Louis Oscar  
58 Lee Avenue, Brooklyn, N. Y.
- Kramer, Paul  
1326 Washington Avenue, New York, N. Y.
- Kreisel, Jacob  
910 DeKalb Avenue, Brooklyn, N. Y.
- Kritman, Azril  
334 East 9 Street, New York, N. Y.
- Krouse, Sidney Morris  
1011 Simpson Street, New York, N. Y.
- Krulis, Albert Joseph  
570 Grand Avenue, Astoria, N. Y.
- Kvares, Daniel  
360 East 121 Street, New York, N. Y.
- Langberg, Isidore  
357 So. 5 Street, Brooklyn, N. Y.
- Lapidus, George  
2075-63rd Street, Brooklyn, N. Y.
- LaRocca, Michael  
65½ Skillman Avenue, Brooklyn, N. Y.
- Lehrer, Arthur Martin  
1369 East 29 Street, Brooklyn, N. Y.
- Leibson, Samuel  
552 Vermont Street, Brooklyn, N. Y. %  
Slutzky.
- Leikin, Samuel  
73 Conselyea Street, Brooklyn, N. Y.
- Lemberg, Benjamin  
159 East 52 Street, New York, N. Y.
- Lercher, Juda  
272 East 7 Street, New York, N. Y.
- Leschinsky, Morris  
50 Columbia Street, New York, N. Y.
- Levine, Benjamin  
364 West 36 Street, New York, N. Y.
- Levine, Irving  
62 Beacon Street, Newburgh, N. Y.
- Levinsky, Charles  
995 Simpson Street, New York, N. Y.
- Levinsohn, Arthur  
26 So. Bridge Street, Poughkeepsie, N. Y.
- Levy, Artrelle  
2329-7th Avenue, New York, N. Y.
- Lewis, Edgar  
2057-78th Street, Brooklyn, N. Y.
- Lewitus, Victor  
3459 DeKalb Avenue, New York, N. Y.
- Lippmann, Max  
1222 Boynton Avenue, New York, N. Y.
- Liss, Julius  
139 Eldridge Street, New York, N. Y.
- Lovich, Boris  
1121 Monis Avenue, New York, N. Y.
- Lovish, Sidney  
227 Hart Street, Brooklyn, N. Y.

- Lurie, Abraham  
1950 Bryant Avenue, New York, N. Y.
- McBride, William E.  
100 Hartson Street, Syracuse, N. Y.
- MacNear, Raymond  
22 Fullerton Avenue, Newburgh, N. Y.
- Maddock, Catherine Margaret  
College of Mt. St. Vincent, Mt. St. Vincent,  
N. Y.
- Malvin, Jack  
64 East 112 Street, New York, N. Y.
- Mandell, Henry  
191 Moore Street, Barberton, Ohio
- Marcus, Louis  
169 East 102 Street, New York, N. Y.
- Markowitz, Max  
222 East 124 Street, New York, N. Y.
- Mehr, Joseph  
77 Division Avenue, Brooklyn, N. Y.
- Memmoli, Riccardo Eugenio  
211 Avenue A, New York, N. Y.
- Miceli, Anthony William  
784 Bushwick Avenue, Brooklyn, N. Y.
- Milea, Francis S.  
196 President Street, Brooklyn, N. Y.
- Miller, Henry  
Fleischmanns, N. Y.
- Miller, Joseph  
117 East 109 Street, New York, N. Y.
- Miller, Kenneth Scott  
23 Dale Avenue, Ossining, N. Y.
- Mintzer, Marcus  
223 East 4 Street, New York, N. Y.
- Nadel, Abraham  
265 Rochester Avenue, Brooklyn, N. Y.
- Nadelhaft, Isaac  
827 Kelly Street, New York, N. Y.
- Nadler, Charles Jack  
108 Gerry Street, Brooklyn, N. Y.
- Nash, Henry Bergen  
34 Fairview Avenue, Walden, N. Y.
- Nielsen, Laurence R.  
235a Monitor Street, Brooklyn, N. Y.
- Nussbaum, Henrietta  
211 E. Broadway, New York, N. Y.
- Okrent, Frank  
212 Opal Court, Brighton Beach, N. Y.
- Okst, George  
Kings Park, New York, N. Y.
- O'Neill, Bernard  
344 Dennison P'kway, Corning, N. Y.
- Palange, Edward Arthur  
193 Bleecker Street, New York, N. Y.
- Panetta, Viola Diana  
148 Hester Street, New York, N. Y.
- Parker, John Henry  
Warrensburg, N. Y.
- Penner, Samuel  
1769 Prospect Place, Brooklyn, N. Y.
- Perlmutter, Jacob  
390 East 4 Street, New York, N. Y.
- Pierson, Sanford Ralph  
28 So. Main Street, Liberty, N. Y.
- Plotkin, Louis  
781-44 Street, Brooklyn, N. Y.
- Polizzi, Salvatore  
241 East 108 Street, New York, N. Y.
- Pollack, Sam  
310 East 4 Street, New York, N. Y.
- Polley, Louis Bernard  
340 Pleasant Street, Gardner, Mass.
- Raia, Emanuel  
1396 Herkimer Street, Brooklyn, N. Y.
- Reife, Leo M.  
1023 Hopkinson Avenue, Brooklyn, N. Y.
- Reisman, Saul  
1341 Southern Blvd., New York, N. Y.
- Reiter, Morris  
156 Avenue C, New York, N. Y.
- Richards, Emilio D.  
6 Odell Avenue, White Plains, N. Y.
- Rieger, Paul  
1358 Brook Avenue, New York, N. Y.
- Rievman, Homer  
2259-63rd Street, Brooklyn, N. Y.
- Rifkin, Herman Isadore  
1652 Prospect Place, Brooklyn, N. Y.
- Rinzler, Philip  
1243-55th Street, Brooklyn, N. Y.
- Robinson, Milton  
981 East 14 Street, Brooklyn, N. Y.
- Rosati, Albert Benedict  
9125-96th Street, Woodhaven, N. Y.
- Rosati, John  
9125-96th Street, Woodhaven, N. Y.
- Rose, Kenneth William  
39 So. 12 Street, Mt. Vernon, N. Y.
- Rosenberg, Benjamin  
858 Beck Street, New York, N. Y.
- Rosenblatt, Morris  
1354 Brook Avenue, New York, N. Y.
- Rosenblum, Max  
1976 Second Avenue, New York, N. Y.
- Rosenfeld, Marcus  
652 Willoughby Avenue, Brooklyn, N. Y.
- Rosenstock, Pearl  
48 Canal Street, Ellenville, N. Y.
- Rosenthal, Irving  
299 So. 5 Street, Brooklyn, N. Y.
- Rothman, Israel  
366 Jerome Street, Brooklyn, N. Y.
- Rubens, Nathan  
108 Water Street, Stapleton, S. I.
- Rubenstein, Sidney  
505 Essex Street, Brooklyn, N. Y.
- Rubin, Fannie  
2140 Clinton Avenue, New York, N. Y.
- Rubin, Israel  
324 Georgia Avenue, Brooklyn, N. Y.
- Sabella, Vincent J.  
6023-17th Avenue, Brooklyn, N. Y.
- Sacco, Umberto V.  
95 Olive Street, New Haven, Conn.

- Safer, Herman  
184 Lee Avenue, Brooklyn, N. Y.
- Salitan, Ralph  
350 West 71 Street, New York, N. Y.
- Samlowitz, Max  
89 Glenmore Avenue, Brooklyn, N. Y.
- Sanders, Herbert  
7426-7th Avenue, Brooklyn, N. Y.
- Satz, Lola 16 East 106 Street, New York, N. Y.
- Schaefer, Frank A.  
673 Summit Avenue, Jersey City, N. J.
- Scherer, Ralph  
73 Avenue C, New York, N. Y.
- Schmelzer, Henry  
3803 Laurel Avenue, Seagate, N. Y.
- Schneider, David  
70 East 109 Street, New York, N. Y.
- Schwartz, Julius  
81 West 113 Street, New York, N. Y.
- Schwarz, Charles  
366 Montgomery Street, Brooklyn, N. Y.
- Serote, Nathan  
68 Garden Street, Poughkeepsie, N. Y.
- Setaro, Rose Ann  
2839-4th Avenue, Astoria, N. Y.
- Shapiro, Arthur  
312 East 8 Street, New York, N. Y.
- Shapiro, Irving Harold  
179 Wood Avenue, Bridgeport, Conn.
- Sherman, Louis Joseph  
78 Barrett Street, Brooklyn, N. Y.
- Shiffman, Samuel  
39 Essex Street, New York, N. Y.
- Siegel, Samuel  
307a Berriman Street, Brooklyn, N. Y.
- Sileo, Mario  
1525-75th Street, Brooklyn, N. Y.
- Silverstein, Morris  
77 Keap Street, Brooklyn, N. Y.
- Sirota, Benjamin  
1419 Pitkin Avenue, Brooklyn, N. Y.
- Sitar, Joseph John  
132 Spring Street, Union City, Conn.
- Small, John Clement  
16 Day Street, Portland, Me.
- Smith, Edward Joseph  
1758 Topping Avenue, New York, N. Y.
- Smith, George  
2072-61st Street, Brooklyn, N. Y.
- Solomon, Bernard  
662 New Jersey Avenue, Brooklyn, N. Y.
- Soren, Charles Harry  
2007 Daly Avenue, New York, N. Y.
- Sorin, Mae  
2166-8th Avenue, New York, N. Y.
- Spage, Robert  
55-47th Street, Corona, N. Y.
- Speller, Clarence William  
22 Wyandotte Avenue, Highland Falls, N. Y.
- Spiegelglass, Samuel  
1099 Union Avenue, New York, N. Y.
- Steinberg, Blanche C.  
661 East 170 Street, New York, N. Y.
- Stern, William  
1686 Park Place, Brooklyn, N. Y.
- Stillerman, Harry Louis  
252 Atkins Avenue, Brooklyn, N. Y.
- Stout, William Calvin  
71 Cambridge Street, Valley Stream, N. Y.
- Stumkoff, Harry  
375 East 29 Street, Brooklyn, N. Y.
- Tanenbaum, Hyman A.  
52 Barrett Street, Brooklyn, N. Y.
- Tartakowsky, Louis  
1152 Simpson Street, New York, N. Y.
- Tekowsky, Abraham  
1725-51st Street, Brooklyn, N. Y.
- Tracy, Thomas Joseph  
33 Maple Place, Port Chester, N. Y.
- Troub, Kopel  
86 Rivington Street, New York, N. Y.
- Tucker, Louis  
2136 Crotona P'kway, New York, N. Y.
- Tucker, Max  
416 East 52 Street, New York, N. Y.
- Tuman, Robert  
5223 Church Avenue, Brooklyn, N. Y.
- Turk, Jacob Bernard  
281 New Lots Avenue, Brooklyn, N. Y.
- Weinstein, Julius  
2313 Mermaid Avenue, Brooklyn, N. Y.
- Weintraub, Sol  
221 So. 3 Street, Brooklyn, N. Y.
- Westerman, Abraham  
416 East 120 Street, New York, N. Y.
- Wiener, Edward Martin  
1120-56th Street, Brooklyn, N. Y.
- Wiener, Meyer  
1280a Sheridan Avenue, New York, N. Y.
- Wiskin, Morris  
522 E. 13 Street, New York City
- Wolfowitz, Isidore  
347 East 17 Street, New York, N. Y.
- Woodley, Edna Catherine  
Col. of Mr. St. Vincent, Mt. St. Vincent, N. Y.
- Yablonski, Stanley Arthur  
174 Clinton Avenue, Maspeth, N. Y.
- Yakoubian, Leon  
5424-18th Avenue, Brooklyn, N. Y.
- Zablocki, Henry  
93 So. 10 Street, Brooklyn, N. Y.
- Zahn, Joseph Bernard  
1466 Brook Avenue, New York, N. Y.
- Zaugg, Stanley Britain  
2502 Chamberlain Ave., Chattanooga, Tenn.
- Zucker, Philip  
135 Smalley Street, New Britain, Conn.

## EVENING COURSES

- Alexander, Thea  
205 West 57 Street, New York, N. Y.
- Andrade, Oscar  
Broad and Edsall Avenue, Morsemere, N. J.
- Arzooonian, Samuel  
218 St. John's Place, Brooklyn, N. Y.
- Ayers, Howardine  
16 East 98 Street, New York, N. Y.
- Baldwin, Donald C.  
78 Bedford Street, New York, N. Y.
- Barber, Lester A.  
617 West 115 Street, New York City
- Baskin, Mae  
125 Division Avenue, Brooklyn, N. Y.
- Batavin, Michael  
1 Arden Street, New York, N. Y.
- Bianchi, John V.  
104 Seventh Avenue, Newark, N. J.
- Birnbaum, Dora  
191 So. Second Street, Brooklyn, N. Y.
- Bisen, David  
2054-77th Street, Brooklyn, N. Y.
- Bleifeld, Solomon  
555 Lenwood Street, Brooklyn, N. Y.
- Bomstein, Eugenia  
1227 Fairmount Avenue, Elizabeth, N. J.
- Brock, Max  
45 Jensen Avenue, Mamaroneck, N. Y.
- Cerand, Albert Bayard  
1530 Vyse Avenue, New York, N. Y.
- Chen, Ching Chi  
557 West 124 Street, New York, N. Y.
- Cheng, Pao Yuan  
International House, Riverside Drive New York, N. Y.
- Clapp, Kenneth Herbert  
65 East 96 Street, New York, N. Y.
- Cooney, Eugene Joseph  
119-21 Avenue D, College Pt. N. Y.
- Coupey, Eric H.  
200 West 83 Street, New York, N. Y.
- Cummings, James J.  
5231 Skillman Avenue, Woodside, N. Y.
- DeBari, Maurice  
1212 Hudson Street, Hoboken, N. J.
- Durfee, Olive  
520 West 114 St., New York, N. Y.
- Earl, Edward  
589 Jefferson Avenue, Elizabeth, N. J.
- Ettenberg, George J.  
101 Brighton Beach Avenue, Brighton Beach, N. Y.
- Evans, Nora  
Angelica, N. Y.
- Fassberger, August T.  
332 East 144 Street, New York, N. Y.
- Feigenbaum, Robert  
447 East 83 Street, New York, N. Y.
- Feinberg, Herman J.  
8677 Bay Parkway, Brooklyn, N. Y.
- Fibert, Moe  
288 Christopher Avenue, Brooklyn, N. Y.
- Frankel, Max  
156 Second Avenue, New York, N. Y.
- Freedman, Ephraim  
26 Butler Place, Brooklyn, N. Y.
- Glenday, Margaret  
Apt. 2 W-102 West 84th St., New York, N. Y.
- Glickman, Alexander  
523 East Fifth Street, New York, N. Y.
- Goldin, William  
65 East 57 Street, New York, N. Y.
- Gordon, Mary  
28 Middle Neck Rd., Great Neck, N. Y.
- Greenstein, Arthur A.  
1538 Winford Pl., New York, N. Y.
- Grinwalski, Andrew  
939 Bushwick Avenue, New York, N. Y.
- Habekass, Frederick  
200 West 106 St., New York, N. Y. c/o Bell Jundt, Charles John
- 28 Street and 16th Avenue, Beechhurst, N. Y.
- Kabak, Harry  
1255 Longfellow Avenue, New York, N. Y.
- Klatt, G. Albert  
Tallman Place, Englewood, N. J.
- Klugman, Sam  
984 Tiffany St., New York, N. Y.
- Lacovara, George  
754 East 215 Street, New York, N. Y.
- Lauer, Christine M.  
222 North Avenue, New Rochelle, N. Y.
- Lee, Anderson F.  
2324 Eighth Avenue, New York, N. Y.
- Lencki, Beleslaw  
522 E. Benner St., Lawnsdale, Philadelphia, Pa.
- Levine, Marcy  
33 Seventh Street, New York, N. Y.
- Levinsky, Max  
796 Pembroke Street, Bridgeport, Conn.
- Lupus, Julio M.  
15 Fabian Place, Newark, N. J.
- MacDonald, Katherine  
101 West 74 Street, New York, N. Y.
- Maloney, Lillian  
102 West 109 Street, New York, N. Y.
- Martin, Emilo F.  
3528 Tryon Avenue, New York, N. Y.
- McNamara, James H.  
82 Beekman Street, New York, N. Y.
- Morley, Carroll E.  
2111 Bancroft Place, Washington, D. C.
- Mendel, Hyman Louis  
1707 Fulton Avenue, New York, N. Y.
- Milchin, Leon  
627 Myrtle Avenue, Brooklyn, N. Y.

- Munves, Lillian  
1410 West 8 Street, Brooklyn, N. Y.
- Naddeo, Gactano  
258 Spring Street, New York, N. Y.
- Needle, Bertha  
7022 Sixth Avenue, New York, N. Y.
- Paddon, William W.  
175 Gleane Street, Elmhurst, N. Y.
- Pasternak, Herbert  
200 Second Avenue, New York, N. Y.
- Piccoli, S. Thomas  
96 East 208 Street, New York, N. Y.
- Picower, Abraham  
1045 Lowell Street, New York, N. Y.
- Raffy, Marcel Joseph  
156 E. 45 Street, New York, N. Y.
- Rawson, Charles  
946 St. Mark's Avenue, Brooklyn, N. Y.
- Richards, Paul S. 18 High Street, Butler, N. J.
- Rodman, Morris  
43 Grafton Street, Brooklyn, N. Y.
- Rosenberg, Emanuel  
126 Cannon Street, New York, N. Y.
- Saymon, Joseph  
141 East 26 Street, New York, N. Y.
- Schainman, Pincus  
1750 East 7 Street, Brooklyn, N. Y.
- Scharf, Antoine  
910 Seventh Avenue, New York, N. Y.
- Scharf, Cecile Marion  
318 West 56 Street, New York, N. Y.
- Scheinman, Isidore  
65 Mangin Street, New York, N. Y.
- Schochet, Abraham Henry  
9 East 112 Street, New York, N. Y.
- Schrank, John K.  
373 Webster Avenue, Jersey City, N. J.
- Shulman, Jack  
132 William Street, Perth Amboy, N. J.
- Sigelman, Edward Bernard  
63 West 180 Street, New York, N. Y.
- Smith, Alvin E.  
318 West 57 Street, New York, N. Y.
- Smith, Lillian R.  
26 Lafayette Street, Brooklyn, N. Y.
- Smith, Maurice  
500 East 165 Street, New York, N. Y.
- Sokolinski, John J.  
884 East 39 Street, Brooklyn, N. Y.
- Stango, Benjamin  
277 Norfolk Street, Newark, N. J.
- Steller, Alfred  
20 Arden Street, New York, N. Y. Apt. 1a
- Storck, Louis  
700 Main Street, New Rochelle, N. Y.
- Takagi, Arthur  
699 Madison Avenue, New York, N. Y.
- Tapley, Mark Watkins  
401 East 23 Street, Brooklyn, N. Y.
- Taylor, Haywood M.  
28 Argyle Road, Brooklyn, N. Y.
- Trodden, Katherine  
7 West 51 Street, New York, N. Y.
- Warren, Gwen  
33 East 9 Street, New York, N. Y.
- Weinberger, Arthur  
2500 Webb Avenue, New York, N. Y.
- Weinstein, Morris  
9 Prospect Street, White Plains, N. Y.
- Wiedersum, Alan  
96 Merrick Road, Lynbrook, N. Y.
- Wolf, Gertrude  
117 Highland Place, Brooklyn, N. Y.
- Zografi, Elias D.  
10 Greenwich Street, New York, N. Y.

ACADEMIC CALENDAR

1926

- May 24-June 5. Registration for second, third and fourth year candidates.  
June 7-Aug. 7. Summer Laboratory Courses.  
Aug. 16-Sept. 4. Summer Quiz Courses.  
Sept. 1-Sept. 8. Registration for first year candidates.  
Sept. 7-9. Supplementary Examinations.  
    20. Monday, Ninety-seventh Session begins. Second, Third and Fourth  
        Year Classes assemble 9 a. m.  
    21. Tuesday, First Year Classes assemble 9 a. m.  
Oct. 4. Monday, Evening Special Course Classes assemble 7:00 p. m.  
Nov. 2. Tuesday, Election Day, Holiday.  
    25. Thursday, to November 27, Saturday, inclusive, Thanksgiving  
        Holidays.  
Dec. 20. Monday, to

1927

- Jan. 2. Sunday, inclusive, Christmas Holidays.  
    3. Monday, Sessions resumed.  
    10-15. Mid-Year Examinations.  
Feb. 12. Saturday, Lincoln's Birthday, Holiday.  
    22. Tuesday, Washington's Birthday, Holiday.  
Apr. 11. Monday, Last Day for applying for final examinations.  
Apr. 29. Friday, Evening Courses close.  
May. 7-16. Final College Course Examinations.  
    16-19. Final University Course Examinations.  
    25. Wednesday, First Year Class Exercises (Alumni Day).  
    26. Thursday, College Commencement.  
June 1. Wednesday, University Commencement.

SCHEDULE OF EXAMINATIONS

*Supplementary Examinations*

FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

1926

- July 16. Friday, 2-5, Botany Laboratory.  
Sept. 7. Tuesday, 9-12, Pharmacy and Latin.  
    Tuesday, 2-5, Dispensing Pharmacy.  
    8. Wednesday, 9-12, Botany, Physiology, Posology.  
    Wednesday, 2-5, Chemistry.  
    9. Thursday, 9-12, Analytical Chemistry.  
    Thursday, 2-5, Physics.

SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- July 16. Friday, 2-5, Macro- and Micro-Pharmacognosy.  
Sept. 7. Tuesday, 9-12, Pharmacy, Pharmaceutical Jurisprudence.  
    Tuesday, 2-5, Dispensing Pharmacy, Commercial Pharmacy.



- Sept. 8. Wednesday, 9-12, Materia Medica, Toxicology.  
 Wednesday, 2-5, Pharmaceutical Chemistry.  
 9. Thursday, 9-12, Analytical Chemistry.  
 Thursday, 2-5, Organic Chemistry.

## THIRD YEAR UNIVERSITY CLASS

- Sept. 7. Tuesday, 9-12, Department of Pharmacy.  
 8. Wednesday, 9-12, Department of Materia Medica.  
 9. Thursday, 9-12, Analytical Chemistry.  
 Thursday, 2-5, Industrial Chemistry.

*Mid-Year Examinations*

## 1927 FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

- Jan. 11. Tuesday, 9-1, Botany, Physiology.  
 Tuesday, 2-5, Posology, Botany Laboratory.  
 13. Thursday, 9-12 Pharmacy.  
 Thursday, 2-5, Dispensing Pharmacy.  
 15. Saturday, 9-1, Physics, Chemistry.  
 Saturday, 2-5, Analytical Chemistry.

## SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- Jan. 10. Monday, 9-12, Materia Medica, Toxicology.  
 Monday, 2-5, Macroscopic and Microscopic Pharmacognosy.  
 12. Wednesday, 9-12, Analytical Chemistry.  
 Wednesday, 2-5, Chemistry.  
 14. Friday, 9-12, Pharmacy.  
 Friday, 1-3, Dispensing Pharmacy.  
 Friday, 3-5, Commercial Pharmacy.

*Final Examinations*

## FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

1927

- May 7. Saturday, 2-5, Dispensing Pharmacy.  
 11. Tuesday, 9-12, Botany, Physiology.  
 Tuesday, 2-5, Analytical Chemistry.  
 13. Thursday, 9-12, Chemistry.  
 Thursday, 2-5, Pharmacy, Pharmaceutical Latin.  
 15. Saturday, 9-12, Botany Laboratory, Posology.  
 Saturday, 2-5, Physics.

## SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- May 9. Monday, 9-12, Materia Medica, Toxicology.  
 Monday { 2-3.30, Pharmaceutical Jurisprudence.  
 3:30-5:30 Commercial Pharmacy.  
 11. Wednesday, 9-12, Dispensing Pharmacy.  
 Wednesday, 2-5, Macroscopic and Microscopic Pharmacognosy.

- May 13. Friday, 9-12, Analytical Chemistry.  
Friday, 2-5, Organic Chemistry.  
16. Monday, 9-12, Pharmacy.

## UNIVERSITY CLASSES

- May 12. Thursday, 9-12, Freshman Chemistry.  
13. Friday, 2-5, Sophomore Chemistry.  
14. Saturday, 2-5, Freshman Physics.  
17. Tuesday, 9-12, Junior and Senior Pharmacy.  
Tuesday, 1-4, Junior and Senior Analytical Chemistry.  
18. Wednesday, 1-4, Junior Industrial Chemistry; Senior Food Analysis  
and Toxicology.  
19. Thursday, 1-4, Sophomore, Junior and Senior Dispensing Pharmacy.  
20. Friday, 9-12, Senior Biological Chemistry.

















# Columbia University Bulletin of Information

## COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

ANNOUNCEMENT

1927-1928

NEW YORK

1927

# Columbia University Bulletin of Information

Twenty-Seventh Series, No. 48

August 27, 1927

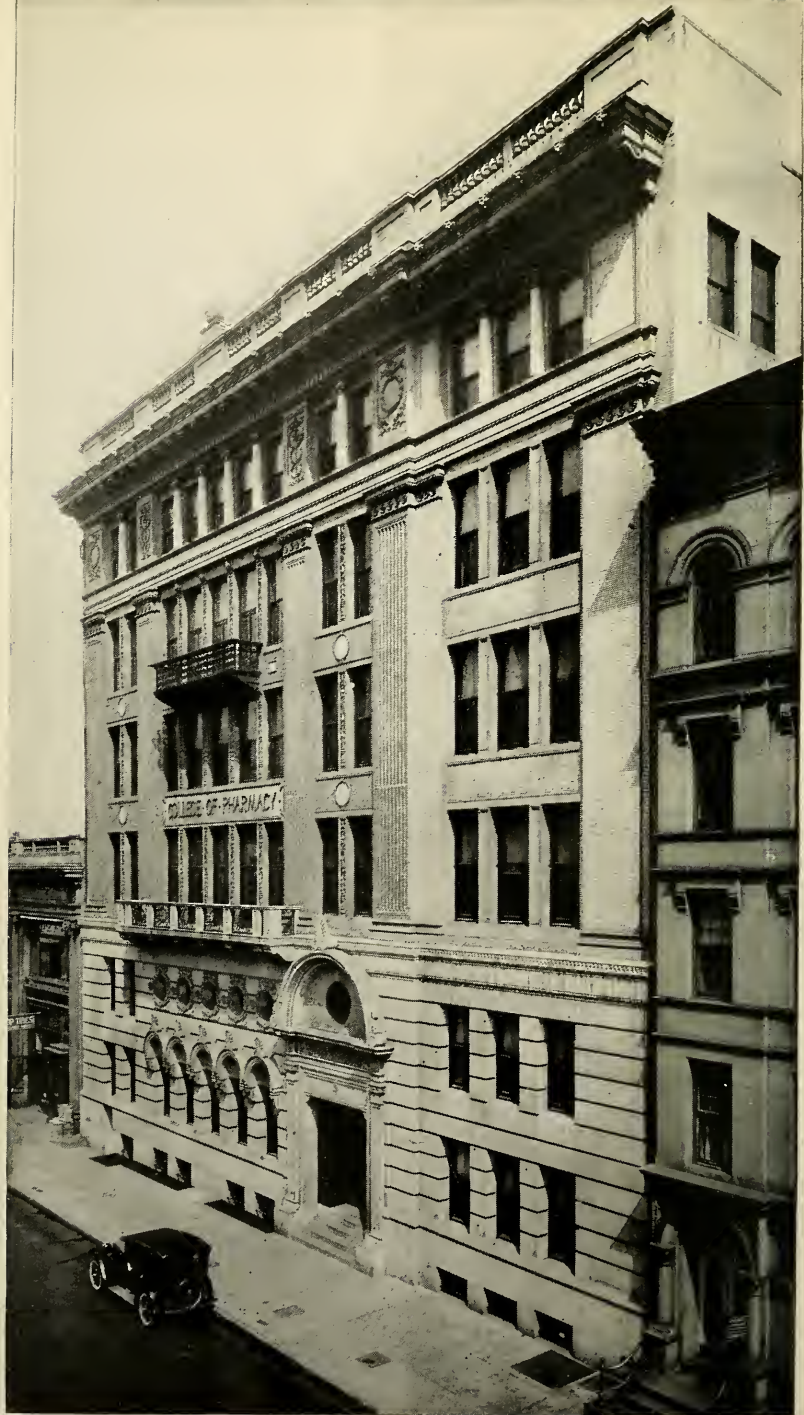
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1. Annual Reports of the President and Treasurer to the Trustees.
2. The Catalogue of the University, price 25 cents, and the Announcements of the several Colleges and Schools, and of certain Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.
3. Other publications of the University, including the annual Directory of Officers and Students, are issued as Bulletins.

C. P. 20,000—1927

For special or more detailed information than is given in this announcement, applicants are requested to address the Registrar of the College, 115 West Sixty-eighth Street. His office hours are as follows: From September 1, 1927 to May 1, 1928, daily except Saturdays, 9 a. m. to 5 p. m.; Saturdays, 9 a. m. to 12 m. Other portions of the year, daily (except Saturdays), 9:30 a. m. to 4 p. m.; Saturdays, 9:30 a. m. to 12 m.





COLLEGE OF PHARMACY OF THE CITY OF NEW YORK  
113-119 WEST SIXTY-EIGHTH STREET



Columbia University  
Bulletin of Information

COLLEGE OF PHARMACY  
OF THE CITY OF NEW YORK

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This College reserves the right to make such changes in the curriculum, schedule, calendar and regulations appearing in this announcement as circumstances may require.

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# 1927

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Jan.	2	3	4	5	6	7	8	May	1	2	3	4	5	6	7	Sept.	4	5	6	7	8	9	10
	9	10	11	12	13	14	15		8	9	10	11	12	13	14		11	12	13	14	15	16	17
	16	17	18	19	20	21	22		15	16	17	18	19	20	21		18	19	20	21	22	23	24
	23	24	25	26	27	28	29		22	23	24	25	26	27	28		25	26	27	28	29	30	31
	30	31	..	..	..	..	..	June	29	30	31	..	..	..		Oct.	2	3	4	5	6	7	8
Feb.	..	..	1	2	3	4	5		..	..	..	1	2	3	4		2	3	4	5	6	7	8
	6	7	8	9	10	11	12		5	6	7	8	9	10			9	10	11	12	13	14	15
	13	14	15	16	17	18	19		12	13	14	15	16	17			16	17	18	19	20	21	22
	20	21	22	23	24	25	26		19	20	21	22	23	24	25			23	24	25	26	27	28
	27	28	29	30	31	..	..	July	26	27	28	29	30	..			30	31	..	..	..	..	..
March	..	..	1	2	3	4	5		..	..	..	..	1	2		Nov.	..	1	2	3	4	5	6
	6	7	8	9	10	11	12		3	4	5	6	7	8			6	7	8	9	10	11	12
	13	14	15	16	17	18	19		10	11	12	13	14	15	16			13	14	15	16	17	18
	20	21	22	23	24	25	26		17	18	19	20	21	22	23			14	15	16	17	18	19
	27	28	29	30	31	..	..	Aug.	24	25	26	27	28	29	30			21	22	23	24	25	26
April	..	..	..	..	1	2	3		31	..	..	..	..	..			28	29	30	..	..	..	..
	3	4	5	6	7	8	9		..	1	2	3	4	5	6		Dec.	..	1	2	3	4	5
	10	11	12	13	14	15	16		7	8	9	10	11	12	13			4	5	6	7	8	9
	17	18	19	20	21	22	23		14	15	16	17	18	19	20			11	12	13	14	15	16
	24	25	26	27	28	29	30		21	22	23	24	25	26	27			18	19	20	21	22	23
	..	..	..	..	..	..	..		28	29	30	31	..	..			25	26	27	28	29	30	31

# 1928

	1	2	3	4	5	6	7	May	..	1	2	3	4	5	Sept.	..	..	..	..	..	..	..	1
Jan.	8	9	10	11	12	13	14		6	7	8	9	10	11	12		2	3	4	5	6	7	8
	15	16	17	18	19	20	21		13	14	15	16	17	18	19		9	10	11	12	13	14	15
	22	23	24	25	26	27	28		20	21	22	23	24	25	26		16	17	18	19	20	21	22
	29	30	31	..	..	..	..		27	28	29	30	31	..		23	24	25	26	27	28	29	
	..	..	..	..	..	..	..	June	..	..	..	..	..	..		Oct.	30	..	1	2	3	4	5
Feb.	..	..	1	2	3	4			..	..	..	..	..	1	2		..	1	2	3	4	5	6
	5	6	7	8	9	10	11		3	4	5	6	7	8	9		7	8	9	10	11	12	13
	12	13	14	15	16	17	18		10	11	12	13	14	15	16		14	15	16	17	18	19	20
	19	20	21	22	23	24	25		17	18	19	20	21	22	23		21	22	23	24	25	26	27
	26	27	28	29	..	..	..		24	25	26	27	28	29	30		28	29	30	31	..	..	..
March	..	..	..	1	2	3			1	2	3	4	5	6	7		Nov.	..	1	2	3	4	5
	4	5	6	7	8	9	10		8	9	10	11	12	13	14			4	5	6	7	8	9
	11	12	13	14	15	16	17		15	16	17	18	19	20	21			11	12	13	14	15	16
	18	19	20	21	22	23	24		22	23	24	25	26	27	28			18	19	20	21	22	23
	25	26	27	28	29	30	31		29	30	31	..	..	..			25	26	27	28	29	30	31
April	1	2	3	4	5	6	7		..	..	1	2	3	4		Dec.	..	1	2	3	4	5	6
	8	9	10	11	12	13	14		5	6	7	8	9	10	11			2	3	4	5	6	7
	15	16	17	18	19	20	21		12	13	14	15	16	17	18			9	10	11	12	13	14
	22	23	24	25	26	27	28		19	20	21	22	23	24	25			16	17	18	19	20	21
	29	30	..	..	..	..	..		26	27	28	29	30	31	..			23	24	25	26	27	28
	..	..	..	..	..	..	..		..	..	..	..	..	..			30	31	..	..	..	..	..

# 1929

	1	2	3	4	5	May	..	1	2	3	4	Sept.	1	2	3	4	5	6	7	..	..	..	1
Jan.	6	7	8	9	10	11	12		5	6	7	8	9	10	11		8	9	10	11	12	13	14
	13	14	15	16	17	18	19		12	13	14	15	16	17	18		15	16	17	18	19	20	21
	20	21	22	23	24	25	26		19	20	21	22	23	24	25		22	23	24	25	26	27	28
	27	28	29	30	31	..	..		26	27	28	29	30	31	..		29	30	..	..	..	..	..
	..	..	..	..	..	1	2		..	..	..	..	..	1			..	1	2	3	4	5	6
Feb.	3	4	5	6	7	8	9		..	..	..	..	..	..		Oct.	6	7	8	9	10	11	12
	10	11	12	13	14	15	16		3	4	5	6	7	8			13	14	15	16	17	18	19
	17	18	19	20	21	22	23		10	11	12	13	14	15			20	21	22	23	24	25	26
	24	25	26	27	28	..	..		16	17	18	19	20	21	22			27	28	29	30	31	..
	..	..	..	..	..	1	2		23	24	25	26	27	28	29			..	..	..	..	..	..
March	3	4	5	6	7	8	9		30	..	..	..	..	..		Nov.	..	1	2	3	4	5	6
	10	11	12	13	14	15	16		..	1	2	3	4	5	6			3	4	5	6	7	8
	17	18	19	20	21	22	23		7	8	9	10	11	12	13			10	11	12	13	14	15
	24	25	26	27	28	29	30		14	15	16	17	18	19	20			17	18	19	20	21	22
	..	..	..	..	..	..	..		21	22	23	24	25	26	27			24	25	26	27	28	29
April	31	..	..	..	..	..	..		28	29	30	31	..	..			Dec.	1	2	3	4	5	6
	..	1	2	3	4	5	6		..	..	1	2	3	4				8	9	10	11	12	13
	7	8	9	10	11	12	13		..	..	7	8	9	10				15	16	17	18	19	20
	14	15	16	17	18	19	20		11	12	13	14	15	16	17			22	23	24	25	26	27
	21	22	23	24	25	26	27		18	19	20	21	22	23	24			29	30	31	..	..	..
	28	29	30	..	..	..	..		25	26	27	28	29	30	31			..	..	..	..	..	..



## OFFICERS AND TRUSTEES

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ADOLPH HENNING, 1928	THEODORE WEICKER, 1929
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WILLIAM W. CONLEY, 1928	DAVID COSTELO, 1930
RICHARD H. TIMMERMANN, 1928	HOWELL FOSTER, 1930
WILLIAM S. GORDON, 1929	CHARLES J. MCCLOSKEY, 1930
IRVING MCKESSON, 1929	WILLIAM P. RITCHEY, 1930
HERMAN WALTER, 1930	

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IRVING MCKESSON

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CURT P. WIMMER, A.M., Ph.M., Phar.D.	<i>Acting Secretary of the Faculty</i>
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HARRY TAUB, B.S., A.M.	<i>Assistant Professor of Materia Medica</i>
FREDERICK D. LASCOFF, Ph.G., B.S.	<i>Assistant Professor in Pharmacy in Charge of Commercial Pharmacy</i>
JACOB DORFMAN, Ph.G., A.M.	<i>Acting Assistant Professor of Pharmacy</i>
WILLIAM MACSATA, Ph.Ch.	<i>Acting Assistant Professor of Chemistry</i>
ABRAHAM TAUB, B.S., A.M.	<i>Assistant Professor of Physics and Chemistry</i>

## INSTRUCTORS

VIVIAN COMMONS, Ph.G.	<i>Instructor in Pharmacy</i>
PHILIP KERKER, A.B.	<i>Instructor in Materia Medica</i>
SAUL KAYE, Ph.G.	<i>Instructor in Pharmacy</i>
AUGUSTUS A. MAIER, B.S.	<i>Instructor in Chemistry</i>
LESLIE JAYNE, B.S.	<i>Instructor in Analytical Chemistry</i>
FRANK POKORNY, Ph.Ch.	<i>Instructor in Materia Medica</i>

\*1927-1928 Absent on sabbatical leave.

JOSEPH E. ADAMS, Ph.Ch.....	<i>Instructor in Materia Medica</i>
ALEITA HOPPING, Ph.D.....	<i>Instructor in Physiology</i>
MAXWELL KARSHAN, B.S., Ph.D.....	<i>Instructor in Biological Chemistry</i>
WILLIAM KEENAN, Ph.G.....	<i>Instructor in Materia Medica</i>
MILTON D. SEWELL, Ph.G., B.S.....	<i>Instructor in Physics and Chemistry</i>
THEODORE FAILMEZGER, Ph.Ch.....	<i>Instructor in Chemistry</i>
JOSEPH P. MIALE, Ph.Ch.....	<i>Instructor in Pharmacy</i>
HELEN TIMMERMAN, B.S., Ph.D.....	<i>Instructor in Materia Medica</i>
SAMUEL LIBERMAN, Ph.Ch., B.S.....	<i>Instructor in Physics and Chemistry</i>
VICTOR LEWITUS, Ph.G., B.S.....	<i>Instructor in Materia Medica</i>
RUDOLF HAUCK, Ph.Ch., B.S.....	<i>Instructor in Pharmacy</i>
HERMAN J. AMSTERDAM, Ph.G., B.A.....	<i>Instructor in Pharmacy</i>
CHARLES H. SOREN, Ph.G., B.S.....	<i>Instructor in Chemistry</i>
EDWARD ANZELMI, Ph.Ch.....	<i>Instructor in Chemistry</i>
†.....	<i>Instructor in Pharmacy</i>

## LECTURERS

ISIDORE NEUSTAEDTER, Phar.D., LL.B.	<i>Lecturer in Pharmaceutical Jurisprudence</i>
THOMAS F. MAYO, A.M.....	<i>Lecturer in English and American Government</i>

## UNIVERSITY OFFICERS OF ADMINISTRATION

FRANK DIEHL FACKENTHAL, A.B.....	<i>Secretary of the University</i>
ADAM LEROY JONES, Ph.D.....	<i>Director of University Admissions</i>
CHARLES C. WILLIAMSON, Ph.D.....	<i>Director of Libraries</i>
ROGER HOWSON, M.A.....	<i>Librarian</i>
DAVID M. UPDIKE, M.E.....	<i>Superintendent of Buildings and Grounds</i>
HENRY V. ARNY, Ph.D.....	<i>Librarian of the College of Pharmacy</i>
EDWARD J. GRANT, A.B.....	<i>Registrar of the University</i>
CHARLES S. DANIELSON.....	<i>Bursar of the University</i>
HENRY LEE NORRIS, M.E.....	<i>Director of Works</i>

†To be appointed.

## GENERAL STATEMENT

Columbia University was founded in 1754 as Kings College by royal grant of George II, King of England, "for the Instruction of youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws and Doctor of Law (Doctor Juris); the School of Medicine with courses leading to the degree of Doctor of Medicine; the Schools of Mines, Engineering, and Chemistry, with courses leading to the Bachelor of Science degree, the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degree of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degrees of Bachelor of Literature and Master of Science; the School of Business, with courses leading to the degrees of Bachelor and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degrees of Bachelor of Science and Doctor of Dental Surgery; the non-professional graduate Faculties of Political Science, Philosophy and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy. In addition to these Schools and Faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; and the College of Pharmacy of the City of New York, with courses leading to the degrees of Pharmaceutical Chemist and Bachelor of Science.

The University maintains three Sessions during the year: The Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education and to take courses toward a diploma or an academic degree; Home Study courses are also offered to persons who are unable to take work in residence.

### ADMISSION

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standard of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the *Announcement* of each School will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

#### REGISTRATION

Before attending any University exercises each student shall present himself at the office of the Registrar and shall there file a registration blank giving such information as may be required for the University records together with a statement of the courses he is authorized to pursue. The places of registration are the general office of the Registrar of the University in University Hall; the College of Physicians and Surgeons, 437 West Fifty-ninth Street; the School of Dental and Oral Surgery, 302 East Thirty-fifth Street; the College of Pharmacy, 113-119 West Sixty-eighth Street; Barnard College; and Teachers College. To complete his registration the student shall pay the required fees.

Each person whose registration has been completed will be considered a student of the University during the period for which such registration is held valid. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

#### WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar. Applications for the return of fees must be made in writing at the time of withdrawal.

The Dean or Director of the school or faculty concerned may, for reasons of weight, grant a leave of absence to a student in good standing.

#### ANNOUNCEMENTS

The *Announcements* of each College or School, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

The *Announcement* of each School contains a schedule of fees and expenses for the courses in that School.

#### LIBRARY

The libraries of the University contain about 1,025,000 volumes, exclusive of unbound pamphlets. The various departments of instruction have also special libraries in connection with their lecture-rooms and laboratories. The Avery Architectural Library, the Law Library, the Ella Weed Library of Barnard College, Teachers College Library, and the libraries of the College of Physicians and Surgeons, the School of Dental and Oral Surgery, and the College of Pharmacy, are all available to students of the University.

#### RESIDENCE HALLS

There are four residence halls for men on South Field: Furnald with 282 rooms, Hartley with 300, John Jay with 476 and restaurants adequate for all men students, and Livingston with 300 rooms. Johnson Hall, on East Field, with accommodations of room and board for 360 students in the graduate and professional schools and Tompkins Hall, situated on Claremont Avenue in immediate proximity to the campus, with a capacity for 100 graduate students, are residence halls for women.

All the University residence halls, for both men and women, are under the supervision of advisory committees appointed by the President, consisting of University officers and assisted by committees made up of residents in the halls.

Copies of Residence Halls Announcements giving floor plans and dormitory regulations together with application blanks will be furnished on request by the Secretary of the University, 213 Library.

Detailed information and advice concerning desirable rooms and boarding places in the vicinity of the campus for both men and women may be obtained by writing to the Residence Bureau, Room M, Earl Hall.

In addition to the dining-halls in John Jay and Johnson the University maintains the following cafeteria restaurants (service à la carte) which furnish wholesome food at moderate rates: The Commons (men and women) University; Barnard Hall Lunch Room (women) Barnard Hall; Teachers College Cafeteria (men and women) Grade Dodge Hall, 121 St. The Columbia University Press Bookstore, located in the basement of Journalism, conducts a soda fountain where light luncheons are served.

#### GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the Medical Director. On the basis of this examination, advice is given as to the kind and amount of exercise best adapted to his needs. Barnard Hall, of Barnard College, and Thompson Hall, of Teachers College, are thoroughly equipped with physical training facilities for women students.

## EARL HALL

Earl Hall was given to Columbia University by the late William Earl Dodge for the religious and social activities of the students. On the main floor, reached by the campus entrance, are the Appointments Office, Residence Bureau, Men's Residence Halls Office (where may also be found the Director of Earl Hall who is in charge of social affairs on the campus), the Trophy Room and Lobby, containing team pictures and trophies. On the upper floor are located offices for the Chaplain of the University and the Director of Religious Activities, and an auditorium seating 400 people which is available for student receptions and dances. The first floor (entrance from Broadway) is occupied by the offices of the University Medical Officer.

## MEDICAL SERVICE

The University Medical Officer has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. The University Medical Officer, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists and nursing care, will receive such information upon applying at the office of the University Medical Officer.



## THE COLLEGE OF PHARMACY

The ninety-eighth annual session of the College of Pharmacy, open to both men and women, will begin on Monday, September 26, 1927.

Prospective students should carefully note Rule No. 16 of the Pharmacy Laws of the State of New York, part of which is as follows:

"c Matriculation. A matriculant of any registered school of pharmacy in New York State must possess the 'Registered Apprentice Certificate' before matriculation is completed. Any student who has not had practical experience prior to entering the school or who has had experience in another State than New York, shall be registered as an apprentice by the executive officer of such school."

An amendment to the pharmacy statute, which becomes Chapter 338 of the Laws of 1924, provides that a graduate of a registered school of pharmacy who is not 21 years of age and who has not had the required practical experience in a registered pharmacy, may be admitted to the examination in theoretical subjects only and on passing the same may thereafter be required to take only the practical examination when he has met the statutory requirements of the law. Such applicant does not receive any certificate upon passing the examination and is not granted any right or privilege because he passes the theoretical examination. A second fee of \$10.00 must be paid when taking the practical examination. The amendment became operative on January 1st, 1926.

Students who have served in either the Medical Department of the U. S. Army or the Hospital Corps of the U. S. Navy, and whose discharge papers note such service, may receive credit therefor toward meeting the experience requirement of the State Board of Pharmacy.

The attention of prospective students is called to the increasing call for graduates of advanced courses, to fill other professional positions. The general application of federal, state and municipal food and drug laws is creating a demand for thoroughly trained pharmaceutical inspectors and analysts. The obligations thus imposed upon manufacturers and merchants must result, and are doing so, in compelling them to employ scientifically trained assistants for responsible services which formerly, were often left to incompetent and irresponsible employees. For this field of service the ordinary graduate in pharmacy is wholly unqualified.

Another class of demands that are frequently encountered is for instructors, professors and heads of departments in pharmacy schools. The teaching staffs in the schools of pharmacy of the United States now include nearly one thousand members. However well qualified these instructors may be as to knowledge of the subjects that they are engaged in teaching, few of them have received the special training in the theory and art of teaching which is considered essential for teachers in other schools. Special provision for this work, as an elective, is called for in the complete pharmaceutical curriculum.

To meet these higher requirements, three and four year courses of study, leading respectively to the degrees of Pharmaceutical Chemist (Ph.Ch.) and Bachelor of Science in Pharmacy (B.S. in Phar.), have been established.

It is particularly worthy of note that our conditions for these degrees have been adopted by the Education Department of the State of New York as a State requirement.

#### THE COLLEGE BUILDING

The location of the College is at one of the most readily accessible points in the City. Within two blocks are stations of the elevated and underground railroads, and the Broadway, Columbus and Amsterdam Avenue lines connect with nearly all surface lines in the City. The completion of the various tunnels under the Hudson, East and Harlem rivers has greatly facilitated and expedited suburban transportation. Central Park is within two blocks of the College, and the American Museum of Natural History and the Medical Department of the University are each about a half-mile away. The central buildings of the University are reached within fifteen minutes from the door of the College.

The College Building was erected after a study of the principal buildings of the kind in this country and abroad. Experience has failed to show any material feature in which it could have been better adapted to the purpose of pharmaceutical instruction, either theoretical or practical, but so great has been the increase in the applications for admission that it has been found necessary to provide greater accommodations in the form of an additional connecting building.

In its planning, two principal objects have been kept in view; first, provision for a large increase in the membership of the first and second-year classes; second, greatly increased and improved facilities for the work of the higher classes. In connection with the latter, extensive provision has been made for research work, by both faculty and special students. Our Library has also been greatly improved, the entire lower floor of the new building having been reserved for its accommodation.

#### THE LIBRARY

The Library is in charge, during College hours, of a trained librarian, who is ready to offer any assistance desired by readers. It contains the important works of reference required in the different departments of instruction, and for the various branches of science taught in the College of Pharmacy. It covers, indeed, a very broad field in all departments of chemistry, botany, and pharmacy. Should the resources of the College be insufficient for some special purpose, the student has recourse to such great library storehouses as the General Library of Columbia University, on Morningside Heights, the Library of the College of Physicians and Surgeons, School of Dental and Oral Surgery, the New York Academy of Medicine, the New York Botanical Garden, and others, and he will also be able, by special arrangement, to borrow from the great Library of the Surgeon-General's office at Washington.

The Library contains an extensive series of periodicals on chemistry, pharmacy, and botany, with their allied branches. All important journals relating to the work of the College are regularly received.

During regular College hours the Library is accessible not only to officers and students of the College, but also to the pharmacists of the city. Under certain regulations, books may be borrowed for outside use, but for obvious reasons important works of reference and unbound periodicals are not loaned. Library

copies of the text-books in use by the College may not be removed from the library.

#### INFORMATION BUREAU

The Information Bureau conducted by the library staff is designed to furnish pharmacists with data required in emergencies and not available in the library of the average drug store. During the past years of operation the Bureau has met with gratifying success, and it is steadily growing in popularity.

The following paragraphs explain the methods employed in conducting the service.

1. Telephone inquiries will be answered cheerfully without charge. Residents of Greater New York or vicinity wishing to inquire about some pharmaceutical problem will call up the Information Bureau, Trafalgar 1733, and will receive information immediately if it is accessible.

2. Non-residents will have their problems answered by mail if they enclose a self-addressed stamped envelope.

3. Problems requiring extended research will be handled for a fee as moderate as consistent with high-grade service.

4. Translations of articles from foreign languages, either in full or in abstract, as well as transcripts of papers appearing in English or American pharmaceutical, chemical or botanical periodicals will be prepared for those desiring to pay for such service.

5. As in the past, all visitors to the Library, desiring to do their own research work, will be given courteous attention.

#### EMPLOYMENT FOR STUDENTS

The Registrar, so far as possible, assists students to secure such positions, in and about the city, as will not prevent them from regularly attending the College exercises.

The general plan adopted may be briefly stated as follows: Each pharmacist engages both a first and second year student, who shall work alternately three days during the week and half a day on Sunday. This allows the students half their time for College work and necessary rest. The College course lectures are arranged so as to harmonize with this plan.

Any student wishing to secure employment should upon entering College communicate with the Registrar.

Within easy reach of the College are some three thousand pharmacies, where students who have had some experience in pharmacy may obtain employment with salary sufficient to pay the whole or a large part of their expenses while attending College.

#### COURSES OFFERED

Two Regular Courses of study are offered, known respectively as the College Course and the University Course, and three Evening Courses in the Departments of *Materia Medica*, Pharmacy and Chemistry. A Summer Preparatory Course is provided, designed to enable students so desiring to better prepare themselves for the fall supplementary examinations.

In response to inquiries frequently received as to the advantages of the University Course over the College Course, the following synopsis has been prepared:

1. Members of the University class only are recognized as students of the University, and certain of the University privileges are open only to them.

2. The University Class attends on five days weekly, instead of three, as does the College Class, and the course includes regular work in academic subjects, conducted by special instructors supplied by the Dean of the Faculty of Columbia College (See page 18), this work receiving full credit from the University toward the baccalaureate degree.

3. For the University Class, the College provides a thorough course of laboratory instruction in advanced Chemistry, Pharmacy and Physics and special courses in Microscopy and Bacteriology, consisting of both theoretical and laboratory instruction.

4. Not only is the degree of Pharmaceutical Chemist recognized as of higher rank than that of Graduate in Pharmacy, but the three-year course for which it is awarded qualifies its recipients for many lines of pharmaceutical work that are not open to graduates from the College Course.

5. The degrees of Pharmaceutical Chemist and Bachelor of Science in Pharmacy are conferred by the University, that of Graduate in Pharmacy by the College.

It may be said in conclusion that the present tendency is strongly toward a higher educational grade than that represented by the Graduate degree, and the degree of Graduate in Pharmacy is ceasing to represent a satisfactory professional preparation.

Through a faculty consisting of forty-one active members, students in all classes derive the benefit not only of the most advanced methods, but of instruction in small groups or class sections, thus allowing the largest amount of individual attention.

#### IMPORTANT ANNOUNCEMENTS

So numerous and important are the changes here announced, in both our College and University Courses, that they amount to a virtual reorganization. In order to meet the new conditions, it has been found necessary to add twelve new members to the teaching staff.

The following conditions will remain, as announced in our preceding Bulletin.

1. No practical experience in drug store or pharmacy will be required previous to matriculation, in lieu of which the State Education Department has accepted the increased training in operative and commercial pharmacy that has been provided.

2. No student will be admitted more than two weeks after the date of opening of the session.

3. All applicants for admission to any of the courses given must present an acceptable certificate of health from the candidate's family physician or from the University Medical Officer. In case of doubt an examination by the University Medical Officer will be required. The proper blanks will be furnished on application to the Registrar of the college.

4. All matriculants for this session must pay at least one-third of the tuition fee for the year, on or before the 3rd day of September, 1927, failing which, their places will be filled by others, and no part of this sum will be refunded subsequently in case of the discontinuance of their course.

5. Any student who has failed in a laboratory course must make up this deficiency during the summer session, and cannot be allowed laboratory space during the regular session of 1927-1928. To this rule there may be certain exceptions, in case the laboratory work cannot be done during the summer.

6. Students intending to compete for the Plaut Fellowship should carefully read the conditions stated on page 28 of this *Announcement*, and take early steps to qualify for such competition.

7. According to the present valuation of high school work by the New York State Education Department, that of each year is rated as 18 counts, instead of 15 as formerly. The equivalent of high school graduation, when secured otherwise than by such graduation, is therefore understood as being 72 Regents counts.

8. It is to be noted that Regents' professional examinations for the Pharmacy student qualifying certificate will be discontinued after the year 1927 (See page 19).

#### THE COLLEGE COURSE

It was a matter of great regret to this School that conditions prevented us from joining the other leading schools of the country in the inauguration of a three-year course for the degree of Ph.G. in 1925. These conditions being now removed, the advanced step will be taken during the coming year. The fundamental idea of this increase in time is generally accepted as being that of improving the quality of the work done, rather than that of providing a large amount of additional work, this improvement applying particularly to the practical features of the course. The precise object of a course leading to the degree of Graduate in Pharmacy being to prepare such graduates for meeting the conditions of service in a retail pharmacy, the greater portion of the increased time has been assigned to the department of pharmacy, and to those features of the work of the other departments which are directly contributory thereto. After a careful study of the requirements, we have concluded that the time officially assigned for this course is insufficient, and we have added 128 hours for laboratory work in commercial and dispensing pharmacy.

The accomplishment of the better training that is sought necessarily calls for the introduction of new topics in the existing syllabi, and we call special attention to the following items.

We have always regarded a course in materia medica as being incomplete that did not include instruction in the apparatus, equipment and appliances included under the title of sick-room supplies, but no opportunity has heretofore offered for practical instruction of this kind. In our reorganized course 32 hours will be devoted to explaining and illustrating the nature and use of articles of this class. Although technically pertaining to the subject of materia medica, this instruction forms an important part of the students' preparation in commercial pharmacy.

Another qualification that we deem requisite for every well equipped pharmacist is a general knowledge of the nature and effects of bacteria in their relations

with pharmacal practice. While we do not regard the conduct of a bacteriological laboratory as pertaining to the business of the ordinary pharmacist, we regard as necessary some knowledge of the principles of bacterial decomposition, sterilization and immunization, and 64 hours have been assigned for instruction in those subjects. While this subject, relating to the activities of plants, pertains technically to botany, it also has close relations with practical pharmacy.

Many of our graduates have believed, or perhaps we should say felt, that their diplomas should bear the name of Columbia University, notwithstanding that they had not pursued the University Course, but we have never believed that graduation from our two-year College Course justified that action. It has now been agreed that those who successfully pursue this new three-year course should receive diplomas bearing the University stamp.

One of the results of this addition of a third-year class will be a reduction in the number of matriculants each year, since the total capacity of the school is strictly limited. We are therefore obliged to announce that not more than 275 new students can be accepted for the session of 1927-1928.

#### THE UNIVERSITY COURSE

The principal changes in this course consist in

1. An increase in the required attendance to five days, with an average of 32 hours per week.
2. The introduction of courses of instruction in English, American Government, foreign language and mathematics, aggregating, during the first three years, a total of 24 points or 12 hours.
3. The meeting by matriculants of the full entrance requirements of Columbia College.
4. The B.S. in Pharmacy Course, heretofore given by this school, has not been regarded as on a par with that of the college of liberal arts and science, however complete its professional character, but the course now offered possesses the full number of points of non-professional work of the ordinary baccalaureate course, in addition to that of a professional character.
5. The Department of Health of the City of New York has placed the Bachelor of Science in Pharmacy, graduating from this course, in the position of being eligible to conduct a bacteriological laboratory or to fill similar positions.
6. Owing to the amount of space and equipment required for the performance of the work of this course, the number of matriculants is limited to fifty, annually.

#### ENTRANCE REQUIREMENTS

##### COLLEGE COURSE

This is a course of three years, each of thirty-two weeks, leading to the degree of Graduate in Pharmacy, conferred by the College, and qualifying the graduate to meet examinations for the position of Licensed Pharmacist.

The admission of students to this course is conditional upon the limitations of available space. For several years past, the College has not been able to accommodate nearly all who have applied for admission. For the session of

1927-1928, we shall have accommodations for only 275 new candidates for the degree of Ph.G. All properly qualified applicants will be admitted in the order of their application, until only fifty vacancies remain. Thereafter, we shall select only the best qualified of those applying, to fill such vacancies.

For admission to this course, the student must be at least seventeen years of age, and must present a Qualifying Certificate for a Pharmacy Student, issued to him by the N. Y. State Education Department. This certificate, or the statement of the State Education Department that the student is entitled to it, must be filed on or before November 15. Those who have successfully pursued four years' study at a high school or other school of corresponding grade, recognized by the State Education Department, can secure the certificate by sending their credentials to the Examination Division, Education Department, Albany, N. Y., on a form provided for that purpose, together with a fee of one dollar. Those unable to present such credentials are required to pass examinations held by the Department ("Regents' Examinations") in any of the subjects named in the following table which may be selected by the candidate, or in any other subjects in which examinations are given, the subjects so selected to give a total credit of at least seventy-two counts, as there indicated. These examinations are held in January, June and September, in Albany, New York, Buffalo, and Syracuse. All subjects taken in Regents' examinations to count toward the certificate must be passed at not less than 75 per cent.

Students entering on credentials from foreign countries where the language is other than English must pass an examination in English for foreigners *before being matriculated*.

*It is important to note* that these professional academic Regents examinations will be discontinued on January 1st, 1928. After that date it will be possible to earn credit toward a Pharmacy students certificate only by attendance at an approved day or evening high school.

Students who have attended private institutions should not fail to ascertain whether such institutions are approved by the Education Department. If not, their credentials will not be accepted, and they will be required to take the regular examinations of the Department. For information as to these examinations, the necessary fees, etc., consult the State Education Department, Albany, N. Y.

#### SUBJECTS OFFERED BY THE DEPARTMENT OF EDUCATION

##### *Ancient and Modern Languages*

12 Three years English	10 Second-year German
4 Fourth-year English	10 Second-year French
10 Second-year Latin	10 Second-year Spanish
10 Second-year Greek	10 Second-year Italian

##### *Mathematics*

5 Elementary algebra	2 Inter. algebra
3 Advanced algebra	2 Solid geometry
5 Plane geometry	2 Plane trigonometry

*Science*

5 Physics	5 Biology
5 Chemistry	5 Physical geography

*History and Social Science*

5 Modern history I	2½ Economics
5 Modern history II	2½ Civics
5 American history	

*Commercial Subjects*

5 Bookkeeping I	5 Commercial arithmetic
5 Bookkeeping II	10 Shorthand II

*Drawing*

2 Elementary representation	2 Elem. mechanical drawing
2 Intermediate drawing	

## THE UNIVERSITY COURSES

These are courses of full academic years (September to June) leading to graduation with the other departments of the University, and to the degree of Pharmaceutical Chemist, conferred by the University, at the end of the third year, and to that of Bachelor of Science in Pharmacy at the end of the fourth.

The requirements for admission to this course are the same as those for Columbia College. The student must be seventeen years of age, must have graduated from a high school within or outside of the State of New York that is accredited by the Education Department of this State, and must present a pharmacy student qualifying certificate from the Education Department of this State, based on 72 academic counts, equal to 15 Columbia units.

Under this course, two programs are offered, one leading to the degree of Pharmaceutical Chemist, and one to the degree of Bachelor of Science in Pharmacy.

The evidence of adequate preparation for admission to the University Course in the subjects required on the part of candidates who have not completed a year of college work, *includes both examination and school records*, and are the same as those for admission to Columbia College.

The subjects which candidates may offer in fulfilment of these requirements are outlined below. (A "unit" implies the study of a subject for a time equivalent to five hours weekly for one year.)

## PRESCRIBED SUBJECTS

All candidates *must* offer:

ENGLISH	{	1 (grammar and composition)	2 units
		2 (literature)	1 unit
MATHEMATICS	{	<i>ai</i> (algebra to quadratics)	1 unit
		<i>aii</i> (quadratics and beyond)	1 unit
		<i>c</i> (plane geometry)	1 unit



EITHER

(1) Latin . . . . . 4 units

OR

(2) { Latin, Greek, French, German, Spanish or Italian . . . . . 3 }  
 { Physics or Chemistry . . . . . 1 } 5 units  
 { History . . . . . 1 }

ELECTIVE SUBJECTS, to make up 15 units . . . . . 4 or 5 units

ELECTIVE SUBJECTS

*Group I*

The candidate may offer any of the following subjects, not included among his prescribed subjects, without other restriction than that to offer an advanced subject will involve offering, either at the same time or earlier, the corresponding elementary subject.

Biology—See Zoology

The English Bible . . . . . 1 unit  
 Elementary Greek . . . . . 2 or 3 units  
 Elementary History . . . . . 1 or 2 units  
 Drawing (Freehand or Mechanical) . . . . . 1 unit  
 Music . . . . . 1 unit  
 Intermediate French . . . . . 1 unit  
 Intermediate German . . . . . 1 unit  
 Intermediate Italian . . . . . 1 unit  
 Intermediate Spanish . . . . . 1 unit  
 Advanced French . . . . . 1 unit  
 Advanced German . . . . . 1 unit  
 Social Science . . . . . 1 unit  
 Advanced Spanish . . . . . 1 unit  
 Advanced Mathematics (College) . . . . . ½, 1 or 1½ units

and in the case of candidates not offering 4 units in Latin:

Elementary Latin . . . . . 2 or 3 units

*Group II*

The candidate may offer not more than 4 units in all from the four subjects following:

Elementary French . . . . . 2 units  
 Elementary German . . . . . 2 units  
 Elementary Italian . . . . . 2 units  
 Elementary Spanish . . . . . 2 units

*Group III*

The candidate may offer not more than 3 units in all from the six subjects following:

Botany . . . . . 1 unit  
 Chemistry . . . . . 1 unit  
 Physics . . . . . 1 unit  
 Physiography . . . . . 1 unit  
 Shopwork . . . . . 1 unit  
 Zoology . . . . . 1 unit

¹Greek, 3 units, may be substituted for Latin, in which case 6 elective units must be offered.

## NEW METHOD

Under the "New Method," candidates whose school and character records are entirely satisfactory, may meet the examination requirements by means of a psychological test. The school course must include three units in English, three in Mathematics (elementary and intermediate algebra and plane geometry), and at least three units in a foreign language, ancient or modern. It must have been concerned primarily with Languages, Science, Mathematics and History.

## OLD METHOD

Under the "Old Method," the examination requirements for admission may be satisfied by any one of the three following means, or any approved combination thereof.

1. By the examinations of the College Entrance Board, held in June of each year at Columbia University and at about 150 other educational centers in the United States and abroad.

2. By the examinations conducted at Columbia University in September of each year, by the Director of University Admissions.

(The examination grades in connection with the above two methods are interpreted in the light of the record which students have made in school.)

3. By the examinations given in the high schools by the Education Department of the State of New York to students who have satisfactorily completed certain courses in these high schools. In these examinations, seventy-five per cent will ordinarily be regarded as the lowest passing mark.

For candidates qualifying for admission on the basis of examinations before Columbia University or the College Entrance Board, two methods are open:

*a. Examination in fifteen units.* A candidate may offer examinations in fifteen units as evidence of his preparation in secondary school subjects.

*b. Four examination plan.* A candidate who has completed a satisfactory secondary school course with a high degree of proficiency may, by special permission, satisfy the examination requirement by means of "comprehensive examinations" in not less than four subjects including those prescribed for admission.

Candidates entering by the old method are required to take the psychological examination for purposes of record only.

Those who contemplate taking the June examinations must file their applications with the Secretary of the College Entrance Board at 431 West 117th Street, New York, N. Y., on or before May 30, 1927. Those contemplating the September examinations, must file their applications with the Secretary of Columbia University on or before September 12, 1927. Blank forms of application for either series of examinations may be secured from the respective secretaries.

Every candidate for admission to the University Course should secure a copy of the current *Bulletin on Entrance Examinations and Admission* which may be had upon application to the Secretary of the University.

The course leading to the degree of Pharmaceutical Chemist will cover three years; that for the degree of Bachelor of Science in Pharmacy will cover four years. Both will involve an average of thirty-two hours of instruction weekly.

## METHOD OF INSTRUCTION

The instruction of each class during the first and second years of the College Courses occupies three days of the week, the alternate days being free for practical experience in the pharmacy. This arrangement provides a source of income, which is a necessity for many of the students of the College. During the third year, an additional half-day must be devoted to work in the pharmacy laboratory. All students who can do so are urged to devote their third year wholly to College work.

For the purpose of more fully elucidating the subjects presented in the lectures and laboratories and of familiarizing the students therewith, and as a test of attention and progress, provision is made for a complete series of recitations or quizzes by a corps of qualified instructors. The order of topics and the manner of their treatment at these recitations follow closely the courses of instruction given by the professors in the respective departments. In order that all the members of the class may be drilled as often and as thoroughly as possible, the classes are divided into sections, the instruction of each section being identical, but conducted at different hours.

In several departments each student receives daily, before the beginning of the work, a mimeographed copy of the exercises.

## GRADUATE IN PHARMACY—COLLEGE COURSE

This course, of three years, is designed to fit the graduate for meeting the requirements of the Boards of Pharmacy of most of the states.

## FEES

## MATRICULATION AND REGISTRATION FEES

For the session beginning September 1927 the Board of Trustees has adopted the following schedule of fees for students in attendance.

The Matriculation Fee (\$5.00) must be paid by each student at the time of his first registration. The matriculation fee is payable but once.

The Registration Fee (\$5.00) is payable at the time of all subsequent registrations for any year or in any of the prescribed courses.

The fee for students activities, first, second and third years is.....\$10.00

## TUITION FEES

*College Course*

The tuition fee for each year of the College Course is.....\$250.00

*University Course*

The tuition fee for each year of the University Course is.....\$300.00

Students who fail to pass the examinations at the end of the course or at the supplementary examinations in the fall, if they desire to repeat the year's work, must pay a registration fee of \$5.00 and a second tuition fee.

## LABORATORY BREAKAGE FEE

At the beginning of each term each student is required to deposit the sum of \$10, to cover the cost of apparatus broken by him during that term. At the close of the term such portion of this fee as has not been consumed by such breakage will be returned to him.

## EXAMINATION FEES

On or before April 9, 1928, all students in the first and second year classes must pay an examination fee of \$10.

Candidates for the degree of Pharmaceutical Chemist must pay on or before April 23, 1928, an examination fee of \$10.

Candidates for the degree of B.S. in Pharmacy must pay, on or before April 23, 1928, an examination fee of \$15.

## SPECIAL COURSES AND SUMMER LABORATORY AND QUIZ COURSES

The fees for all special courses taken during the regular term and for all summer laboratory or quiz courses, will be charged for at the rate of \$7.50 per point, payable in advance, and computed in accordance with the schedule (synopsis of studies) on page 30.

## PAYMENT OF FEES

A printed schedule of fees, with the dates when due, may be obtained in the Registrars' Office.

The matriculation or registration fee must be paid at the time of registration.

The session fee may be paid as indicated below, the student electing which plan he will accept.

All students registered in the first year class must, in order to complete their matriculation, make the first payment of their fees on or before September 3, 1927, instead of September 26, as noted below. Fees are *not* returnable under any circumstances.

A. Pay in full on or before September 26, 1927.

B. Pay one-half of the fee on or before September 26, 1927, and half on or before January 2, 1928; in this case, \$3 will be added to the first payment.

C. Pay a third of the fee on or before September 26, 1927, a third on or before December 5, 1927, and a third on or before February 13, 1928; in this case \$5 will be added to the first payment.

A student accepting plan B or C will, on failure to meet a payment, be liable to be debarred, from that date, from attendance.

The fees for the Summer Preparatory and Evening Courses are payable in advance.

All students, both regular and special, must pay their fees at the office of the College.

It is estimated that an expenditure of \$50 will cover the cost of the text-books and necessary apparatus required for the full two-year course.

## REGULATIONS OF THE BOARD OF TRUSTEES

The rules and regulations stated in this Announcement and those posted on the Bulletin Boards, signed by the Chairman of an authorized committee, or by the Dean, will govern all students of this College until a new Announcement is issued.

## AUTHORITY OF THE DEAN

The Dean is the executive officer of the Faculty. It is his duty, under the direction of the President, to enforce the rules of the Faculty and of the Board of Trustees and to administer discipline in the case of their violation.

## REQUIREMENTS FOR ALL REGULAR STUDENTS

*Attendance*

Students are particularly requested to be in attendance at the commencement of the course, in order to obtain full benefit from the lectures. No student will be admitted more than two weeks after the opening of the term, and no member of the third and fourth year classes will be admitted later than one week after the opening, except by special permission of the Faculty.

Every student must attend during ninety per cent of the hours of instruction in each year, and during eighty per cent of those of each exercise. For being late twice at daily opening the student will be charged with one absence. For failure to comply with this condition, the student will forfeit the privilege of presenting himself for examination.

*Advancement in Classes*

Advancement from one class to the next requires that the student successfully pass an examination in all the subjects taught during the preceding year, the passing mark being 75 per cent, although the Faculty may admit a student to the next class conditioned in a single subject. It is to be particularly noted that in deciding upon the qualifications of candidates, their term's work and their character as students will be given due consideration.

Those students who fail to pass these examinations—but *not those* who have failed, without excuse, to present themselves thereat—will be allowed to undergo a single supplementary examination to be held as announced on page 76, provided, however, that they did not fail in a majority of their subjects. Students failing in a majority of their subjects will be required to repeat their entire course, provided however, that such students may be refused re-matriculation if, in the judgment of the faculty, they are not qualified to be students of this College. A student who fails in a laboratory course must repeat such course successfully before being advanced to the higher class. This work must be done during the summer, except in special cases.

As an aid to those students who are required to take a supplementary examination, summer quiz courses are held as per schedule on page 43. By a regulation of the State Education Department, students failing in more than one subject must make good the deficiency at the school where they so failed. Applicants for the supplementary examination must notify the Registrar on or before September 1, 1927.

Candidates for admission to advanced standing must either pass examinations in all the subjects of the preceding year or must produce evidence of having passed successfully examinations equal thereto.

#### REQUIREMENTS FOR GRADUATION

Every person upon whom a degree is conferred by the College or the University must be of good moral character, and must have complied with all requirements for graduation.

Those who fail to appear for examination (after having handed in their names with the examination fee), or who do not pass satisfactorily, will be allowed to present themselves at the following spring examinations on paying an additional fee of \$10 and complying with all other requirements.

Any student who shall have failed three times in three or more subjects at the final examinations for graduation, shall be required to repeat the entire work of the final year before being again admitted to examination. Any student failing three times in one or two subjects, shall be required to repeat the entire work of the final year in such subject or subjects before being again admitted to examination. Should the student again fail at the final examination and at the following supplementary examination, he will not be permitted to continue as a student, or to be examined again.

All students must obtain a rating of 75 per cent or higher in every department in which they may be examined. Therefore, a student may get the required number of total marks, yet fail of graduation because in one department he falls below the percentage required. Any student failing in one or more departments, but not in laboratory courses, may present himself for re-examination therein at the supplementary examination held in September, or at the next regular spring examination. If successful, he will be graduated without re-examination in the other departments. Should he so elect, he may be re-examined in all departments, in order to increase his general average. Failure in a laboratory course will necessitate the repeating of that course, which repetition must occur during the summer vacation, except in special cases. See schedule on page 43.

#### PRIZES AND SCHOLARSHIPS

The College reserves the right to withhold the award of any scholarship or prize, if, in its opinion, no candidate has exhibited qualifications justifying the award.

#### THE HONOR ROLL

The thirteen candidates securing the highest averages at the final examinations, constitute the Honor Roll, provided, however, that such candidates shall have attained a general average of not less than 85%. The diplomas of such students will bear a special gold seal of the College, bearing the inscription "With Honor."

#### TRUSTEES PRIZES

The Board of Trustees offers annually, to be presented at Commencement, three prizes of \$100 each, for competition at a special examination, by members

of the graduating class who have obtained a position on the roll of honor at the regular examination for graduation. The prizes are awarded respectively for the best practical examinations in Chemistry, Pharmacy and Materia Medica. A certificate, stating the honor for which the prize was awarded, will also be given to each of the recipients of these prizes.

#### THE ALUMNI ASSOCIATION PRIZES

The Alumni Association of the College of Pharmacy offers three prizes to be presented at Commencement to the three students having the highest standing at graduation in the branches taught during the second year of the College course. A gold medal will be given for the best general examination, a silver medal for the second best examination, and a bronze medal for the third best examination.

Three prizes are awarded by the Alumni Association on "Alumni Day" to those members of the first-year College and University Classes who stand highest in laboratory work and who pass the best examinations in all branches of the first College year. The first prize is a Torsion balance, the second prize a copy of Army, "*Principles of Pharmacy*," and the third prize a copy of Sadtler and Coblentz, "*Pharmaceutical Chemistry*."

#### THE MAX J. BREITENBACH PRIZE

A cash prize of \$200, accompanied by a certificate, is presented annually for the highest proficiency in the Junior (third year) University Class. This prize is provided for in perpetuity from the interest of funds bequeathed to the College by the late Max J. Breitenbach for many years a devoted trustee.

#### THE KAPPA PSI PRIZE

The Gamma Chapter of the Kappa Psi Fraternity presents annually a gold medal to be awarded to that Pharmaceutical Chemist not receiving either the Breitenbach prize or the Seabury Scholarship who attains the highest standing throughout the three years of the course.

#### THE LILLIAN LEITERMAN PRIZE

Miss Lillian Leiterman, of the Class of 1911, offers a gold medal to that member of the College class who has maintained the highest standing among the women students throughout the entire College course.

#### THE J. LEON LASCOFF PRIZES

Trustee J. Leon Lascoff offers annually to the fourth and fifth students on the honor roll of the graduating class a year's membership in the American Pharmaceutical Association and to the sixth and seventh students on the honor roll a year's membership in any State Pharmaceutical Association.

#### TRUSTEES SCHOLARSHIPS

Two scholarships, entitling the winners to free tuition during the second year, are granted by the College for each session. These scholarships are awarded to

the two members of the first-year College class who secure the highest averages at the regular spring examinations.

#### THE GEORGE J. SEABURY SCHOLARSHIP

This scholarship has been founded by Dr. Henry C. Lovis, in memory of his uncle, Mr. George J. Seabury, for many years a member and patron of the College. It provides for the tuition, during the Senior (fourth) year of the University course, of that member of this class who has maintained the highest standing during the three years, provided, however, that such student is eligible for the degree of B.S. in Phar., and shall not receive both this scholarship and the Max J. Breitenbach prize.

#### THE ISAAC PLAUT FELLOWSHIP

This Fellowship for the encouragement of graduate study and original research was founded by Mr. Albert Plaut, in memory of his father, Isaac Plaut.

Candidates for this Fellowship must have secured the degree of B.S. in Pharmacy at this school, and must also possess credit for a year's study of a foreign language, equivalent to that of the first year at Columbia College.

It provides for a year of study at a European school or university by that Bachelor of Science in Pharmacy of this College who shall have shown during his full course of study here the greatest taste and aptitude for original investigation. Should no member of a class be deemed worthy of the award, it will be withheld.

The Fellow shall be appointed by the Council of the University upon the nomination of the Trustees of the College of Pharmacy. He shall attend a foreign institution to be selected by himself and approved by the Faculty of the College of Pharmacy, and shall pursue a course of study approved by the Faculty. At the close of his incumbency he shall present to the Faculty a written report of his work.

The Fellowship payment shall be made in three equal instalments, one on June 15, one on November 1, and one on March 1, provided that the Fellow continues faithfully to pursue the work undertaken. In case of failure so to do, he shall forfeit all further privileges and emoluments conferred upon him by his appointment to the Fellowship, and the Trustees of the College of Pharmacy may declare the Fellowship vacant.

N.B.—Competition for the Kappa Psi Prize, the Seabury Scholarship and the Plaut Fellowship is open only to those students who take their entire course at this College.

Since its foundation, the following Plaut Fellows have continued their studies towards the degree of Ph.D.

Moritz A. Dittmar, B.S., 1920, Ph.D., University of Bern, Switzerland, 1922. Assistant Superintendent of the laboratories of Lehn and Fink.

Herbert C. Kassner, B.S., 1921, Ph.D., University of London, England, 1923. Associate Professor of Chemistry, Columbia University, College of Pharmacy.

Helen A. Timmerman, B.S., 1925, Ph.D., University of London, England, 1927. Instructor in Materia Medica, Columbia University, College of Pharmacy.

Fred Levine, B.S., 1927. Graduate student at the University of London, England.



**THE E. R. SQUIBB PRIZE**

This is an annual cash prize of \$100., founded by Messrs. E. R. Squibb & Sons, in memory of Dr. E. R. Squibb. It is awarded to that graduate in Pharmacy who exhibits the greatest proficiency in Analytical Chemistry during his second year, as determined by the laboratory records.

**THE LOUIS DOHME PRIZE**

This is an annual cash prize of \$100., founded by Messrs. Sharp & Dohme, in memory of Mr. Louis Dohme. It is awarded to that graduate in Pharmacy who exhibits the best practical knowledge of the drugs of the United States Pharmacopœia and National Formulary, as determined by the laboratory records and final examinations.

**THE JOSEPH WEINSTEIN PRIZE**

This prize consists of a compound microscope and is established by the New York Retail Druggists' Association, in memory of Dr. Joseph Weinstein. It is awarded to that graduate in Pharmacy who has exhibited the greatest proficiency in Analytical Chemistry during the two years, as determined by the laboratory records and the final examination, and who has not secured any other prize.

**THE ITALIAN PHARMACEUTICAL ASSOCIATION PRIZE**

This Association offers annually a gold medal to the member of the graduating class who has obtained the highest general average in practical laboratory work during the second year.

**THE LEHN AND FINK PRIZE**

This prize consists of a gold medal, offered by Messrs. Lehn and Fink, of New York City, for the graduate attaining the highest standing at the examinations in Pharmacy.

**THE WESTCHESTER COUNTY PHARMACEUTICAL ASSOCIATION PRIZE**

This Association offers annually a gold medal to that member of the graduating class who has attained the highest general average in practical laboratory work, during both years, in the Department of Pharmacy.

**THE GERMAN APOTHECARY'S ASSOCIATION PRIZE**

In commemoration of its foundation in the year 1851, the German Apothecary's Association offers, annually, a gold medal to be awarded to that member of the graduating class who has exhibited the greatest proficiency in the compounding of prescriptions in the senior year.

**THE OLSHANSKY MEMORIAL MEDAL**

This is a gold medal, founded by the students of this school in attendance upon the session of 1923-1924, in memory of their beloved instructor, Jacob Calman Olshansky, whose death occurred during that academic year. This medal is to be awarded annually to that student who has attained the highest average in his class in the subject of Dispensing Pharmacy.

## SYNOPSIS OF STUDIES FOR THE SESSION OF 1927-1928

(For information regarding subsequent years, see p. 79)

## COLLEGE COURSE

*First Year*

		Class Hours	Laboratory Hours	Points
MM 13-14	<i>Gross</i> Botany + Vegetable Histology	1	4	6
MM 15-16	Botany	2	0	4
MM 19-20	Posology	1	0	2
Chm. 1-2	General Physics	2	0	4
Chm. 3-4	Inorganic Chemistry	3 $\frac{1}{2}$	0	7 $\frac{1}{2}$
Chm. 5-6	Analytical Chemistry	1 $\frac{1}{2}$	3	4 $\frac{1}{2}$
Phr. 7-8	Theory of Pharmacy, Pharmaceutical Arithmetic and Latin	4	0	8
Phr. 9-10	Practical Pharmacy	0	2	2
Phr. 11-12	Dispensing Pharmacy	0	1	1

*Second Year*

		Class Hours	Laboratory Hours	Points
MM 59-60	Materia Medica	3	0	6
MM 73-74	Toxicology	1	0	2
MM 61-62	Pharmacognosy	0	3	3
Chm. 51-52	Organic Chemistry + Pharmaco.	4	0	8
Chm. 53-54	Analytical Chemistry	0	3	3
Phr. 55-56	Practical Pharmacy	3	2	8
Phr. 57-58	Dispensing Pharmacy	1	1	3
Phr. 63-64	Pharmaceutical Jurisprudence and Commercial Pharmacy	1 $\frac{1}{2}$	1 $\frac{1}{2}$ 2	4 $\frac{1}{2}$ 1

## UNIVERSITY COURSE

*First Year*

		Class Hours	Laboratory Hours	Points
MM 15-16	Botany	2	0	4
MM 21-22	Plant Morphology and Histology	1	4 $\frac{1}{2}$	6 $\frac{1}{2}$
MM 19-20	Posology	$\frac{1}{2}$	0	1
Chm. 1-2	Physics	2	0	4
Chm. 3-4	Inorganic Chemistry	3 $\frac{1}{2}$	0	7 $\frac{1}{2}$
Chm. 13-14	Analytical Chemistry	1 $\frac{1}{2}$	3	4
Phr. 7-8	Theory of Pharmacy, Pharmaceutical Arithmetic and Latin	4	0	8
Phr. 9-10	Practical Pharmacy	0	4	4
Phr. 11-12	Dispensing Pharmacy	0	1	1
Coll. 17-18	English	3	0	6
Coll. 23-24	American Government	3	0	6

Second Year

		Class Hours	Laboratory Hours	Points
MM 59-60	Materia Medica	3	0	6
MM 61-62	Pharmacognosy	0	3	3
MM 73-74	Toxicology	1	0	2
Chm. 75-76	Inorganic Chem.	3	0	6
Chm. 53-54	Analytical Chemistry	0	3	3
Chm. 69	Physics	1	0	2
Phr. 55-56	Practical Pharmacy	3	2	8
Phr. 57-58	Dispensing Pharmacy	1	2	3
Phr. 63-64	Commercial Pharmacy and Pharmaceu- tical Jurisprudence	1½	1½	4½
Phr 102	Adv Phr.	1	2	2

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Third Year

		Class Hours	Laboratory Hours	Points
MM 117-118	Bacteriology	1	2	4
MM 119-120	Morphology and Taxonomy of Cryptogams	1	2	4
Chm. 103-104	Organic Chemistry	2	0	4*
Chm. 107-108	Analytical Chemistry	1*	10	12
Phr. 109-110	Advanced Pharmacy	2	5	9
Phr. 111-112	Dispensing Pharmacy	0	2	2
Chm 130-131	Theories of Chem	1*	0	2

Fourth Year

		Class Hours	Laboratory Hours	Points
MM 151-152	Applied Pharmacognosy	¾	5	6½
MM 153-154	Botanical Taxonomy	0	1½	1½
MM 155-156	Human Physiology	1	0	2
Chm. 157-158	Inorganic Quantitative Analysis	1	8	10
Chm. 159-160	Food Analysis and Toxicology	1	8	10
Chm. 161-162	Biological Chemistry	1	0	2
Phr. 163-164	Higher Pharmacy	3	7	10

\* See page 75

# OUTLINE OF COURSES

## CHEMISTRY

**Chemistry 1-2—General Physics.** Lectures and recitations, 2 hours, 4 points. Professor A. TAUB and instructors.

This course is so arranged as to emphasize those phases which have a direct bearing upon chemistry and pharmacy. After a consideration of the general properties of matter and the elements of mechanics a number of lectures are devoted to the discussion of the kinetic molecular theory and to wave motion. This is then followed by the consideration of chapters on sound, heat and magnetism.

The lectures are abundantly illustrated with experiments, the College possessing a fine set of physical apparatus.

Text-book: Stewart, *College Physics*.

**Chemistry 71—Practical Physics.** Laboratory course, 2 hours, 2 points. Professor A. TAUB and instructors.

This course has been transferred from the freshman to the sophomore year of the University Class. It will therefore not be offered during the school year 1927-1928.

The course consists of sixteen half day periods of four hours each given during the second half of the year.

**Chemistry 3-4—General Inorganic Chemistry.** Lectures and recitations, 3½ hours, 7 points. Professors ARNY and A. TAUB and instructors.

This course, the beginning of consecutive instruction in chemistry covering three years, is given to the first year students of both the College and the University Classes. It opens with a careful consideration of the fundamental principles of chemistry, special attention being given to the modern theories concerning valence, chemical equilibrium, oxidation and reduction and atomic structure.

Exercises in writing and calculating chemical equations and work on problems in chemical arithmetic are given in special quiz periods devoted exclusively to these important subjects.

On the side of descriptive chemistry, the non-metals and their compounds are discussed from their cultural, technical and pharmaceutical view-points.

Text-books: Deming, *General Chemistry*, second edition; *U. S. Pharmacopæia*.

**Chemistry 5-6—Analytical Chemistry.** (For First Year College Students). Laboratory and recitations. 3½ hours, 4 points. Professors SCHAEFER and MACSATA and instructors.

The course in analytical chemistry consists of laboratory instruction and is attended by the class in sections. Each student is provided with the necessary equipment, and is required to perform all the operations involved in qualitative chemical analysis. The uses of apparatus, the actions of reagents, and the proper manner of bringing about chemical reactions are illustrated and explained. On account of the fundamental importance to the true understanding of the subject the simple laws governing chemical action in solution and the formation of precipitates, the nature of solution, etc., are explained to the student. At first, and under the guidance of the teacher, the characteristic reactions of the basic components are studied in solution, or in the solid at a high temperature. The phenomena observed are interpreted and discussed, and the conclusions recorded. Later, the reactions are represented by equations. The value of grouping is utilized and separations and identifications of group members are performed. Finally, all facts acquired by direct observation are brought together in the systematic procedure for analysis of mixtures. In this recapitulation, individual effort is stimulated by independent work on samples of unlike composition.

Text-book: Hostmann and McAdams, *Laboratory Manual of Analytical Chemistry*.

**Chemistry 13-14—Analytical Chemistry** (for University Freshmen). Laboratory and recitations. 3½ hours, 4 points. Professor KASSNER and instructors.

The student will first be made familiar with laboratory processes by means of a course of experiments in general chemistry— isolation of elements, preparation of pure compounds by means of precipitation, crystallization, etc. and examination of their properties. Simple laws and phenomena will be explained to the student in the course of this work. In this way, experience in manipulation, and a true understanding of the subject will be obtained.

This preliminary course leads to a systematic course in qualitative analysis but during the first year the reactions of the basic ions only are studied. The student is taught the separation and identification of these, and finally is required to analyze systematically solutions containing two or more basic ions.

**Chemistry 69—General Physics (for University Sophomores).** Lectures and recitations, 1 hour, 2 points. Professor SCHAEFER and A. TAUB.

This course is a continuation of Chemistry 1-2 (General Physics) and embraces the subjects of electricity and light. Special consideration is given to ionization, electrolysis, the electron hypothesis, the spectroscope, spectrum analysis, double refraction and the polariscope.

The lectures will be accompanied and made more interesting by many exhibitions and experiments.

Text-book: Stewart, *College Physics*.

**Chemistry 51-52—Pharmaceutical and Organic Chemistry (for second year college students.)** Lectures and recitations, 4 hours, 8 points. Professors ARNY and A. TAUB and instructors.

In the lecture course, special care is taken to keep the student instructed in the new and constantly increasing applications of this science in the art of pharmacy and medicine. The preparation of the more common organic chemicals is fully treated, and the possibilities of advances under modern methods of research are presented to the student as they are reported. This department of modern pharmaceutical education is becoming more important each year, and no pains are spared to keep the instruction in Organic Chemistry fully up to the demands of the times.

All the official and the more important unofficial organic pharmaceutical chemicals and medicinal products, notably the newer synthetic remedies, are taken up, explained in detail, and classified according to their position in the various organic groups. By this method of classification the subject of organic pharmaceutical chemistry is presented in the same sequence as that of general organic chemistry.

Text-book: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition; *U. S. Pharmacopæia*.

**Chemistry 53-54—Analytical Chemistry (for second year College and University Classes).** Laboratory course, 3 hours, 3 points. Professors SCHAEFER and MACSATA and instructors.

The early part of the second-year course is devoted to completing the instruction in qualitative analysis. The discussion of the simpler fundamental laws governing chemical and physical changes in solution, begun in the first year, are followed to conclusion. The preliminary testing and preparation of a sample for analysis, involving solution in solvents other than water, and the procedure for analysis of substances insoluble in water and acids, are studied and practiced. The greater part of the time is devoted to the study of the acidic components.

*Quantitative Analysis.*—Instruction in quantitative analysis is then introduced. This training is intended to enable the pharmacist to determine the purity of medicinal chemicals and to find the percentage strength of preparations. Volumetric analysis being simple, rapid and accurate for many medicinal substances, receives special consideration. As in the first year, all reactions are discussed and the changes involved in them are represented by equations. The quantitative significance of chemical changes is emphasized, derivation of equivalent quantities is discussed and the use of empirical solutions is practiced. Accurate weighing and measuring are insisted on. The student is obliged to perform careful and accurate determinations of the various components in samples furnished him, and after checking his results, to render an extensive report.

*Drug Assaying.*—The instruction in quantitative analysis is extended to the determination of the amounts of the active or principal constituents of drugs and galenicals. Since in the potent drugs and their preparations the quantities of the active constituents are very small, the sources

of error in assaying them must be reduced to a minimum. The treatment that must be carried out for their isolation requires much care and skill in manipulation. It is for these reasons that this work, of necessity, falls in the last part of the course, when the student shall have been sufficiently trained to pursue the work intelligently and skillfully.

Text-book: *U. S. Pharmacopæia*.

**Chemistry 75-76—Inorganic Chemistry** (for University Sophomores). Lectures and recitations, 3 hours, 6 points. Professors ARNY and A. TAUB and instructors.

This course, a continuation of Chemistry 3-4 will be devoted to a consideration of the non-metallic and metallic elements and their compounds. It will open with a discussion of ionization and throughout the course, all of the more important principles of theoretical inorganic chemistry will be discussed. In descriptive chemistry, the course will consider the remaining non-metallic elements and all of the more important metallic elements. These will be discussed from the standpoint of modern industrial chemistry.

Text-book: Sadtler-Coblenz-Hostmann, *Pharmaceutical Chemistry*, sixth edition.

**Chemistry 103-104—Organic Chemistry** (for University Juniors). Lectures and recitations, 3 hours, 6 points. Professors ARNY and A. TAUB and instructors.

This course, a continuation of Chemistry 3-4 and 75-76, will be devoted to a comprehensive study of the carbon compounds; special care being taken to keep the course abreast the new applications of organic chemistry in pharmacy and medicine. The preparation of the more common organic chemicals is given careful consideration and advances under modern methods of research are presented to the class as they are reported.

All the official and the more important unofficial organic pharmaceutical chemicals and medicinal products, notably the newer synthetic remedies, are taken up, explained in detail, and classified according to their position in the various organic groups. By this method of classification the subject of organic pharmaceutical chemistry is presented in the same sequence as that of general organic chemistry.

Text-book: Sadtler-Coblenz-Hostmann, *Pharmaceutical Chemistry*, sixth edition; *U. S. Pharmacopæia*.

**Chemistry 130-131—Theories of Chemistry** (for University Juniors). Lectures and recitations, 1 hour, 2 points. Professor SCHAEFER.

The object of this course is to bring together, to correlate and to elaborate somewhat the various theories presented to the student in the regular chemistry and physics lectures. Consideration is given to the kinetic theory, the gas laws, the laws governing change of state, the quantitative laws of chemical combination, the atomic hypothesis, the laws of valence, the periodic system, radio activity, atomic disintegration, atomic structure, solubility, ionization, indicators, equilibrium, electrochemistry and colloids.

Special importance is placed upon the practical application of modern theories of physical chemistry to analytical processes and methods.

Text-book: Chapin, *College Chemistry*.

**Chemistry 107-108—Analytical Chemistry and Urine Analysis** (for University Juniors). Laboratory, 10 hours, 10 points. Professor KASSNER and instructors.

This laboratory course is given to the University Juniors in two groups, each group having 14 weeks of instruction.

The first period, comprising 100 hours, will be devoted principally to qualitative work. Students will be supplied with pure and adulterated chemicals. Tests of purity and identity will be performed upon the following: chloroform, ether, ethyl acetate, phenol, glycerol, alcohol, amyl alcohol, cresol, creosote, acetanilid, chloral hydrate, paraldehyde, formaldehyde, acetphenetidin, salicylic acid, acetylsalicylic acid and such other chemicals which will give the student practice in the "General Tests" of U. S. P. X.

During the second period of 100 hours, gravimetric and volumetric methods will be studied.

The student will prepare normal acid and alkali solutions. The former will be standardized with barium chloride and silver nitrate, the latter with potassium bitartrate, etc. The finished solutions will then be run against each other. Following upon this, the student will prepare iodine, potassium permanganate, sodium thiosulphate, etc., volumetric solutions. After standardizing same, he will use them in volumetric assays not covered during the second year. The gasometric assays of ethyl nitrite and amyl nitrite as well as the assay of volatile oils will then be taken up and will extend into the third period of 100 hours which will be principally devoted to the proximate assays of the U.S.P. and of galenicals.

The final period of 30 hours will be devoted to the analysis of urine. In addition to the routine qualitative and quantitative tests, the student will receive instruction in the principles and use of colorimeters and polarimeters.

Text-books: *U. S. Pharmacopœia*; Stieglitz, *Qualitative Chemical Analysis*; Amrhein, *Manual of Urine Analysis*.

**Chemistry 157-158—Inorganic Quantitative Analysis** (for University Seniors). Lectures 1 hour, laboratory, 8 hours, 10 points. Professor KASSNER and instructors.

The aim of the fourth-year work in Analytical Chemistry is to carry forward the instruction in chemical analysis to such a point that the student may be able to execute the more important chemical and pharmaceutical analyses.

The object of analytical chemistry is twofold, viz.: qualitative and quantitative. During the first year the detection of the component elements of compounds of unknown composition are studied, while the work of the second and third years applies to determination of the relative proportional amounts of the components of the various compounds studied, chiefly by the aid of volumetric methods, leaving the more difficult and complex processes of gravimetric analysis to be taken up in the fourth year.

The work will consist chiefly of gravimetric determinations, but will perforce include the testing, adjusting and calibrating of delicate balances and other apparatus.

Text-book: Clowes and Coleman, *Quantitative Analysis*. Reference-book, Fresenius, *Quantitative Analysis*.

**Chemistry 159-160—Food Analysis and Toxicology** (for University Seniors). Lectures 1 hour, laboratory, 8 hours, 10 points. Professors ARMY and KASSNER and instructor.

In order to give every advantage to the instruction in this department during the fourth year, the College has provided very complete apparatus, which supplies the very best facilities that modern science affords.

The work in this department will cover the following courses:

1. Analysis of various foodstuffs, including milk, butter, flavoring extracts, etc.
2. Chemical and sanitary examination of water.
3. Isolation and detection of organic and inorganic poisons.

In addition to the laboratory work just outlined there will be a lecture course of thirty hours extending through the entire year, describing the various chemical methods of food examination and explaining the principles underlying the more complex physical instruments employed by the students in their laboratory course.

Text-books: Leach, *Food Analysis*; Autenrieth-Warren, *Detection of Poisons*; Mason, *Examination of Water*.

Reference-Book: Allen, *Commercial Analysis*.

**Chemistry 161-162—Biological Chemistry** (for University Seniors). Lectures 1 hour, 2 points. Dr. KARSHAN.

The instruction in inorganic and organic analysis relates to the examination of substances disconnected from the living body, but the competent analyst must be prepared to consider and act upon a knowledge of the natural changes which substances undergo when absorbed into the living body, as well as the natural products there originating.

## MATERIA MEDICA

**Materia Medica 65-66—Human Physiology and Hygiene** (second year College and University Classes). Lectures and recitations, 1 hour each, 4 points. Professors RUSBY and HART and instructors.

In addition to the skill in Pharmacognosy required for the selection of drugs, the educated pharmacist is required to possess some general information concerning the properties and uses of the materials which he is engaged in handling and dispensing; that is, of the general classification of medicines. As such classification depends directly upon their physiological properties, a limited and specialized course of instruction in Human Physiology is provided.

The method consists in so arranging the order of subjects that the student shall be led from the very first lesson to see the manner in which disordered bodily functions may be restored to a healthy condition by the action of medicines, and leads to the immediate classification of the more important remedies, in connection with the study of the organs or systems to the functions of which they apply. While this method gives an accurate knowledge of the facts involved, it permits of the exclusion of a large portion of the subject of Physiology, and reduces to a minimum the amount of time expended in acquiring such a knowledge of this department of Materia Medica as is properly required of the practising pharmacist.

Text-book: Bachman and Bliss, *Essentials of Physiology*; Howell, *Physiology*.

**Materia Medica 15-16—Botany** (first year College and University Classes). Lectures and recitations, 2 hours, 4 points. Professors RUSBY, HART and TAUB and instructors.

The object of this course is to prepare the student for an understanding of that part of Materia Medica which relates to vegetable drugs. In the limited time allotted to this study, it is impossible to pursue it in all its departments, and attention is concentrated upon such instruction as will fit the student for professional work in pharmacy. The instruction embraces the morphology of the higher plants, from which nearly all of our vegetable drugs are derived, the terms used in official description, systems of classification, botanical nomenclature, and the relations of the lower to the higher plants.

The lectures are illustrated by large colored charts, and each student is furnished with cards bearing mounted specimens.

For the use of the instructor in the Quiz Room, the Alumni Association has provided an elaborate series of papier-mache models arranged to illustrate structure and dissection.

Text-book: Rusby, *Manual of Botany*.

**Materia Medica 81-82—Biology of Micro-organisms** (second year College Class). Lectures and recitations, 1 hour, laboratory, 1 hour, 3 points. Professor HART and instructors.

This subject constitutes an introduction to the nature, behavior and effects of micro-organisms, especially of bacteria. Without entering upon the subject of practical laboratory bacteriology, as is done in the University course, it discusses the life history of bacteria, and the part that they play in fermentation and decomposition, as well as in disease, and indicates the general nature of the means employed in combatting them, and treats of biological products. The subject of sterilization, as employed in the pharmacy, and the principles of antiseptics and immunization are studied.

**Materia Medica 13-14—Botany Laboratory** (first year College Class). Lectures and recitations 1 hour, laboratory, 4 hours, 6 points. Professors BAL-LARD, HART and TAUB and instructors.

*Gross Botany.*—Pharmacognosy, while itself not a science, may be regarded as the art of applying scientific knowledge to the examination of drugs. The theoretical and practical training of the lecture and recitation room is designed to fit the student for such botanical observations as can ordinarily be made with the naked eye.

To enable him to extend these observations by the use of the simple or dissecting and the compound microscope, in preparation for the study of Pharmacognosy in the following year, a course



of laboratory instruction is provided. This portion of the work is under the direction of Professor Hart, and consists in thoroughly training the students in the use of the simple microscope, and in teaching the structure of all parts of the plant which can be studied with that instrument.

The material for these studies is collected during the summer season, and carefully selected with a view to best illustrating the points brought out in the lecture-room.

*Vegetable Histology.*—As ability to properly use a microscope is the foundation of success in all branches of microscopy, first attention is given to a consideration of the parts of the instrument. The uses of the various types of objectives, oculars, illuminating apparatus and mechanical accessories are explained and demonstrated. The details of sectioning, embedding, staining and mounting specimens are illustrated by demonstrations, and at least part of the work is performed by the student.

The course includes the study of plant tissues and the various types of cell contents. A physiological grouping of the tissues is followed by detailed study of the forms, modifications, locations, functions and differences in chemical constitution of the cellular elements concerned in protection, support, absorption, transportation, synthesis and storage. The organic and inorganic cell contents are classified; details of their synthesis are considered and the more commonly used microchemical tests are demonstrated. This work is followed by a detailed study of the arrangement of cells and disposition of cell contents in the various parts and organs of the plant. Each student prepares a set of specimens for use in the course and is required to follow the lecture explanations by personal observation and drawings illustrating the topics considered at each session.

Text-books: Ballard, *Elements of Vegetable Histology*; Ballard & Hart, *Laboratory Manual*.

**Materia Medica 21-22—Plant Morphology and Histology** (first year University Class). Lectures 1 hour, laboratory, 4½ hours, 6½ points. Professors BALLARD, HART, TAUB and instructors.

*Morphology.*—The laboratory course in morphology is designed to supplement the lectures in pharmaceutical botany (M.M. 15-16). It affords practical training in simple plant dissection, both with and without the dissecting microscope, thereby illustrating the topics considered in the above lecture course and fitting students for the advanced studies of pharmacognosy and taxonomy.

*Histology.*—This section of the course includes a detailed study of the various cellular elements considered both as individual tissues and as integral parts of plant organs. This is followed by a systematic review of the derivation of these tissues and organs in the evolution of the higher forms of plant life from the lower. One or more representative orders of the Thallophyta, Bryophyta, Peridophyta and Spermatophyta will be studied in detail.

Texts: Ballard, *Elements of Vegetable Histology*, 2nd Edit.; Ballard and Hart, *Laboratory Manual*; Rusby, *Manual of Botany*; Curtis, *Nature and Development of Plants*.

**Materia Medica 19-20—Posology** (first year College and University Classes). Recitations, 1 hour, 2 points. Professor TAUB.

The practice in some states of issuing licenses as Assistants to those who have not completed their pharmacy course renders it necessary that the more important facts regarding dosage and danger of poisoning should be taught in the first year course. These recitations are designed to meet this requirement.

**Materia Medica 59-60—Materia Medica** (second year College and University Classes). Lectures and recitations, 3 hours, 6 points. Professors RUSBY, HART and TAUB and instructors.

This course includes instruction in both the inorganic and organic divisions of drugs.

In these lectures, the order of arrangement of the drug will be primarily in accordance with the nature of their active constituents and then their therapeutical properties and uses, their botanical relationships being treated subordinately. In this way, the organic and inorganic drugs will be grouped together.

Text-books: Culbreth, *Materia Medica and Pharmacology* (for University students, Gould, *Pocket Medical Dictionary*).

**Materia Medica 73-74—Toxicology** (second year College and University Classes). Lectures and recitations, 1 hour, 2 points. Professors RUSBY, HART and TAUB and instructors.

The classification of poisons is based upon the Physiological Action of Medicines, taught in the preceding year, and is synoptically presented at the beginning of the course in *Materia Medica*. The Toxicology of the individual drugs is then taken up in detail in connection with their physiological action and medicinal uses. Experience has shown that by this method the modes of occurrence of poisoning accidents, the poisonous doses, the action of poisons and their rational treatment, are all made more intelligible to the student, and are better impressed upon his memory, than by treating the subject as entirely disconnected from that of *Materia Medica*.

Text-book: Brundage, *Manual of Toxicology*.

**Materia Medica 61-62—Pharmacognosy.**

**Materia Medica 61—Macroscopic Pharmacognosy** (second year College and University Classes). Laboratory, 3 hours,  $1\frac{1}{2}$  points. Professors BALLARD, HART and TAUB and instructors.

This part of the course comprises laboratory instruction in the classification, identification and description of the vegetable drugs of the U. S. Pharmacopœia and National Formulary. The drugs and medicinal products of vegetable origin are grouped according to the parts of the plant from which they are derived and further classified on the basis of medicinal constituents. Each drug receives separate attention in the laboratory and the following details are considered—titles under which the drug is known; botanical, geographical and commercial sources; official description, definition and prevailing standards; liability to adulteration or substitution; preparation for market and proper means of preservation or storage.

Each student receives a typical specimen of the drug under consideration and must retain the same for future reference. At the completion of the course each student possesses a collection of the official crude drugs and many non-official articles of commercial or technical importance as his personal property. Proficiency in the identification of the drugs studied is determined by practical examinations at short intervals during the term. Botany (Course *MM. 15-16* or its equivalent) is prerequisite to a proper understanding of the work in this course.

Text-books: Mansfield, *Materia Medica and Pharmacognosy*; Youngken, *Pharmacognosy*.

**Materia Medica 62—Microscopic Pharmacognosy.** 3 hrs 1 1/2 pts

*Microscopic.*—The preliminary work of this part of the course will consist of a brief review of the cellular elements and cell contents in the parts of plants used as drugs or foods. In this manner the work in vegetable histology of the first year (Course *MM. 17-18*) is coordinated to the more detailed study of microscopical pharmacognosy. Powders prepared from drugs representing different parts of the plant will be used as material for study. By utilization of the sections prepared in the first year it will be possible, in many instances, for the student to compare the section with the powder and thus observe the disposition of the cellular elements *in situ* and the changes in appearance incidental to powdering. The number of specimens studied is necessarily limited by the amount of time which can be given to the work but the subject matter of the course is so arranged that representative rather than extraordinary types are considered. The student is expected to construct and use analytical keys in the identification of the powdered materials examined. Progress in course is determined by a series of practical examinations at short intervals throughout the year and the student must record his observations by drawings made from his specimens.

Text-books: Ballard, *Elements of Vegetable Histology*; Ballard & Hart, *Laboratory Manual*.

**Materia Medica 67-68—Pharmaceutical Sundries** (third year College Classes 1928-1929). Lectures and recitations 1 hour, 2 points.

The object of this course is to prepare the graduate to deal with the numerous sanitary and sick room supplies, other than drugs and medicines, that are furnished by the average pharmacist to his customers. The complaint is almost universal among pharmacists, that the graduates supplied to them by the pharmacy schools know little or nothing regarding such common articles as syringes, bandages, dressings, thermometers, catheters, apparatus for treatment of the eye and ear, and many other similar articles which he is called upon to sell, and explain. It is believed that this short course, fully illustrated by abundant examples, will do much to correct this deficiency.

**Materia Medica 151-152—Applied Pharmacognosy.** Lecture  $\frac{3}{4}$  hour. Laboratory 5 hours, 6 $\frac{1}{2}$  points. Professors BALLARD and HART.

The object of this course is instruction in the methods of applying the principles of microscopy to practical problems apt to be encountered in the average commercial laboratory. The introductory work will consist of a consideration of the general methods employed in microanalysis and the uses of the more common accessories, including polarizing apparatus, measuring apparatus, counting chambers, dark field and vertical illumination. Each student is required to prepare sections of the various types of vegetable materials, using these sections for the demonstration of staining procedures and microchemical reactions. This will be followed by practical and individual work in the qualitative determination of typical drugs and mixtures to which microanalytical methods are applicable. During this work, it is expected that the student will avail himself of the library facilities of the School and freely use the economic drug and food collections of the laboratory for reference and comparison purposes. The aim is to duplicate actual commercial laboratory conditions and to train the worker to depend upon himself. The materials used for teaching purposes will, as far as possible, be commercial products which have been analyzed by microscopical methods.

Prerequisite—Botany 15-16-17-18; Pharmacognosy 61-62. References: Winton, *Microscopy of Vegetable Foods*; Schneider, *Powdered Drugs*, National Standard Dispensary; Youngken, *Pharmacognosy*.

**Materia Medica 153-154—Botanical Taxonomy.** Laboratory course 1 $\frac{1}{2}$  hours, 1 $\frac{1}{2}$  points. Professor RUSBY.

A good working knowledge of the terms used in descriptive botany, such as can be gained by a study of Rusby, *Manual of Botany*, will be found a sufficient preparation for this course.

The object of this course is to present a general idea of the system of flowering plants, and of their classification and determination by the use of descriptive works. The work consists of the laboratory study of types of the principal families, especially those rich in medicinal and poisonous species.

Text-book: Rusby, *Manual of Botany*.

References: Bentham and Hooker, *General Plantarum*; Engler and Prantl, *Pflanzenfamilien*.

**Materia Medica 117-118—Bacteriology.** Lectures 1 hour, 2 points, laboratory 2 hours, 4 points. Professor HART and instructors.

The Bacteriological Laboratory in our new building has been fully equipped, and practical work in this important field is taken up. The general principles of the science are taught, and the students cultivate, stain, and study the more important microorganisms. Laboratory methods in the bacterial examination of water, air, milk, ice, sputum and excreta are given, and methods of disinfection and sterilization are practically demonstrated.

Park and Williams, *Pathogenic Micro-organisms*.

**Materia Medica 79-80** (this course, pertaining to the second University year in 1929-1930 and thereafter, is the same as No. 117-118, which see).

**Materia Medica 155-156—Human Physiology** (for University Seniors). Text-book and Conferences 1 hour, 2 points. Miss HOPPING.

This course consists of a series of discussions, based on assigned reading, occupying 1 hour weekly throughout the term.

Text-book: Howell, *Physiology*.

**MM. 119-120—Morphology and Taxonomy of Cryptogams** (for University Juniors). Lectures 1 point, laboratory 4 points. Professors BALLARD and HART.

This course comprises lectures, recitations and laboratory exercises in the morphology, phylogeny and taxonomy of the Thallophyta, Bryophyta and Pteridophyta. One or more representatives of the different orders of each class and subclass will be studied in detail.

Texts: Coulter, Barnes, Cowles, *Text-Book of Botany*, Vol. 1; Strassburger, *Text-Book of Botany*.

## PHARMACY

**Pharmacy 7-8—Theory of Pharmacy (including Pharmaceutical Latin and Arithmetic)** (first year College and University Classes). Lectures 3 hours, Recitation 1 hour. Professors DIEKMAN, WIMMER, BROWN, CARTER and instructors. 8 points.

## Theory of Pharmacy

The object of this course is to teach the student to put into practice in the laboratory the principles of pharmaceutical manipulation taught in the lecture room. While the student's work is individual, it is carefully supervised by professors and instructors, so that errors in conception and inaccuracies in method can be promptly corrected.

In the laboratory course the students reach a point where each is competent to prepare such pharmaceutical preparations as are in common use.

The course is designed to present, in as brief a manner as is consistent with thoroughness, those principles of Latin etymology and construction which are essential to an intelligent understanding and use of the terminology of Pharmacy.

As the time which can be devoted to this work in the present curriculum of schools of pharmacy is necessarily limited, only such parts of Latin grammar will be taken up as are required for the correct use of nomenclature of the *materia medica*, and prescription writing.

The nomenclature of the United States Pharmacopœia and the National Formulary will be especially considered, and if time permits, that of the principal foreign Pharmacopœias will be taken up. The subject of Latin abbreviations, as used by the physician in prescription writing, will be specially treated.

Text-books: *U. S. Pharmacopœia; National Formulary*, 4th edition; Sturmer, *Pharmaceutical Latin*; H. C. Muldoon, *Pharmaceutical Latin*; Sturmer, *Pharmaceutical Arithmetic*.

**Pharmacy 9-10—Practical Pharmacy** (for first year College and University Classes). Laboratory course, 2 hours, 2 points. (University students have laboratory course, 4 hours, 4 points). Professors DIEKMAN, WIMMER, BROWN, CARTER, Dorfman and instructors.

Text-book: Diekman and Wimmer, *Pharmacy Laboratory Notes*.

**Pharmacy 11-12—Dispensing Pharmacy** (for first year College and University Classes). Laboratory course, 1 hour, 1 point. Professors DIEKMAN, WIMMER, BROWN, CARTER, Dorfman and instructors.

This course embraces the methods of compounding the simpler types of prescriptions. It includes theoretical instruction and training in manual work. The habit of neatness and, above all, of accuracy, acquired by the student is of direct and immediate advantage to him in rendering his services more valuable to his employer.

Text-book: Diekman and Wimmer, *Dispensing Laboratory Notes*.

**Pharmacy 55-56—Practical Pharmacy** (for second year College and University Classes). Lectures 2 hours, recitations 1 hour, laboratory course 2 hours, 8 points. Professors DIEKMAN, WIMMER, BROWN, CARTER and instructors.

The lectures of this course serve the double purpose of furnishing a theoretical basis for the work of the laboratory and of supplementing the instruction given in the dispensing laboratory. All classes of galenical preparations are taken up and their methods of preparation not only collectively, but individually, are thoroughly considered. The common impurities of each and methods for their detection, means of preservation and incompatibilities are also considered.

The laboratory work follows closely the plan of the lectures, the student is required to prepare all classes of galenicals, together with the manufacture of the more simple chemicals and chemical preparations.

Text-books: *Pharmacopœia of the United States; The National Formulary*; Diekman and Wimmer, *Pharmacy Notes*.

**Pharmacy 57-58—Dispensing Pharmacy** (for second year College and University Classes). Recitations, 1 hour, laboratory course, 1 hour, 3 points. Professors DIEKMAN, WIMMER, BROWN, CARTER and instructors.

The work of the Dispensing Laboratory deals more especially with prescriptions and embraces the compounding and dispensing of the various types requiring technical knowledge and skill. General instruction is given the students in the proper reading and interpretation of the prescription, the recognition of the various constituents of the ingredients of the prescription, together with the proper methods and manner of dispensing them.

**Pharmacy 63-64—Commercial Pharmacy and Pharmaceutical Jurisprudence** (for second year College and University Classes). 4½ points. Lectures 1½ hours. Laboratories 1½ hours. Professor LASCOFF and Lecturer NEUSTAEDTER.

This course in Commercial Pharmacy is designed to give the student a practical knowledge of the basic principles that underlie the successful management of a business. Owing to a lack of knowledge of these principles, many pharmacists have failed to achieve the degree of success to which their professional knowledge and training entitle them.

The course consists of all the activities incidental to the opening and operation of a retail drug-store, including the choice of location, the elements of business administration and store management, insurance, problems of retail merchandising, including the value of discounts, banking, principles of advertising and salesmanship, business correspondence as well as the elements of systematic bookkeeping.

The accounting records are the basic source of data for business management. Accordingly, the course in commercial pharmacy will be devoted largely to the principles underlying the making and interpretation of these records.

The course develops the subject rapidly devoting its time and emphasis to the foundational problems of accounting. It is built up along the lines and methods of modern accounting practice. The subject matter includes: theories of debit and credit; classification of accounts; underlying principles of various accounting records; business papers and documents used as the basis for first entry; simple problems of the balance sheet and income statement; single entry; controlling accounts; handling sales and purchases; safeguarding the cash; consignments, and related topics. Ample practice for students is provided. The work will be related to the modern pharmacy.

This course is also designed to familiarize the student with the general provisions of State and Federal Laws governing the practice of pharmacy. Ordinances and regulations having local application only will likewise be studied.

Special attention will be given to the prohibition and anti-narcotic laws and regulations.

A knowledge of these laws and regulations is essential to the proper and safe conduct of a drug-store or pharmacy.

**Pharmacy 101-102—Manufacturing Pharmacy** (for third year College Class). Lectures and recitations, 2 hours, laboratory course 3 hours, 7 points. Professors DIEKMAN, WIMMER, BROWN, CARTER and instructors.

As in course 55-56 the lectures serve the double purpose of furnishing a theoretical basis for the laboratory work and of supplementing the instruction given in the dispensing laboratory. All classes of chemicals and chemical preparations are taken up and their methods of manufacture are carefully and thoroughly considered. Many preparations commonly used and prescribed in foreign countries are also considered in the work.

Particular attention is paid to the latter part of this subject, not only as regards the chemical preparations, but also the various inorganic salts and newer remedies. The subject of Homoeopathic Dispensing receives its due share of attention.

The laboratory work follows closely the plan of the lectures, the student ascertaining by appropriate tests the identity and purity of various compounds, and preparing many inorganic and organic pharmaceutical preparations and salts, such as ointments, plasters, inorganic salts, organic compounds, etc.

Text-books: *Pharmacopœia of the United States*; *The National Formulary*; *National Dispensatory*; Diekman and Wimmer, *Pharmacy Notes*.

This was not given in 1927

**Pharmacy 109-110—Advanced Pharmacy** (for third year University Class). Lectures and recitations, 3 hours. Laboratory work 5 hours, 11 points. Professors DIEKMAN, WIMMER, BROWN, CARTER and instructors.

The course in this department consists of a series of lectures, laboratory exercises and recitation. The scope of this work comprises the manufacture and study of a number of the more difficult Pharmacopœial and National Formulary preparations, as well as of synthetic remedies. In the manufacture of the latter class of preparations, especial emphasis will be laid upon the proper assemblage, arrangement and use of apparatus.

The entire time assigned for work in the dispensing laboratory will be devoted to a comprehensive study of the subject of prescription incompatibilities. The large number of new remedies which are constantly being employed make the work in this field attractive and valuable.

**Pharmacy 111-112—Dispensing Pharmacy** (for third year College and University Classes). Laboratory work, 2 hours, 2 points. Professors WIMMER, BROWN and CARTER.

Text-books: *U. S. Pharmacopœia*, 9th edition; *National Standard Dispensatory*, latest edition; *National Formulary*, 4th edition.

**Pharmacy 125-126—Dispensing Pharmacy** (for third year College Class). Lectures and recitations, 4 hours, laboratory course, 4 hours, 12 points. Professors DIEKMAN, WIMMER, BROWN, CARTER and instructors.

The lectures of this course embrace instruction in the reception, compounding, checking, labeling, pricing and delivery of the prescription.

The work of the Dispensing Laboratory deals more especially with prescription difficulties and embraces the all-important subject of chemical, pharmaceutical and therapeutical incompatibilities—those which may, as well as those which frequently do occur. The continual introduction of new remedies renders the subject of prescription incompatibilities a never-ending study, and it is the aim of this department to qualify its graduates for keeping pace with discovery.

Text-books: Ruddiman, *Incompatibles in Prescriptions*; Diekman and Wimmer, *Pharmacy Notes*.

**Pharmacy 127-128—Business Pharmacy** (for second year College and University Classes.) Without credit. Visiting lecturers.

This course will consist of a more detailed development of Pharmacy 63-64. The lectures will be on practical subjects, handled in a manner which will further prepare the student for his requirements as a business man.

Lectures by practical business men will be a feature of the course. This series of lectures will give the student the principles of merchandising from a business man's viewpoint rather than that of the pedagogue. These lectures, as well as those of the regular course are aimed to give the student a better understanding of contemporary business problems.

**Pharmacy 163-164—Higher Pharmacy** (for University Seniors). Lectures and recitations, 1½ hours. Laboratory work 7 hours, 10 points. Professors DIEKMAN, WIMMER, BROWN and CARTER.

The work in this course consists of a series of lectures and practical laboratory exercises. The manufacture and subsequent analysis of flavoring extracts, cosmetics, medicated gauzes, and other articles of like nature, will receive the attention which this important subject merits. Proximate vegetable analysis will also be studied and carried on.

The time assigned for work in the dispensing laboratory will be devoted to the compounding of difficult prescriptions. Pharmaceutical topics of current interest will be discussed in a series of weekly seminars.

Text-book: *U. S. Pharmacopœia*, 9th edition.

## ACADEMIC SUBJECTS

**Coll. 17-18—English.** Lectures and recitations, 3 hours, 6 points. Lecturer MAYO.

This is the Columbia College Course "A1-A2, in English Composition and Literature," required of all freshmen at that College.

**Coll. 23-24—American Government.** Lectures and recitations, 3 hours, 6 points. Lecturer MAYO.

This is the Columbia College Course "Government 1-2—American Government." It constitutes a general survey, etc., as on p. 58, Col. Coll. Bull.

**Coll. 77-78—German.** Lectures and recitations, 2 hours, 4 points.

This is the introductory course in German required of all freshmen at Columbia College.

**Coll. 115-116—Mathematics.** 5 points.

This course comprises the Columbia College Course "Mathematics A1, Trigonometry and A6r, Solid Geometry."

## SUMMER LABORATORY AND QUIZ COURSES

Fees: \$7.50 per point (see synopsis of studies, page 30).

These courses are designed to assist students who have failed at the spring examinations to prepare for those of the fall, and to provide instruction for special students in the use of the microscope, in the examination of drugs and in pharmaceutical processes.

It will thus be seen that the work is not definitely fixed, but is made sufficiently elastic to allow it to be adapted to the special needs of individuals.

## LABORATORY COURSES 1928

June 11 to June 30—Department of Chemistry.

July 6 to July 26—Department of Materia Medica.

July 27 to August 16—Department of Pharmacy.

## QUIZ COURSES 1928

These course will be held during the period from August 20 to September 8. First-year students will attend on Tuesday, Thursday and Saturday, and second-year students on Monday, Wednesday and Friday. The schedule of hours for each day will be as follows:

<i>First Year</i>		<i>Second Year</i>	
9-10 a. m.	Dept. of Materia Medica	9-11 a. m.	Dept. of Materia Medica
10-12 m.	Dept. of Chemistry	11- 1 p. m.	Dept. of Pharmacy
12- 1 p. m.	Dept. of Chemistry	2- 4 p. m.	Dept. of Chemistry
2- 4 p. m.	Dept. of Pharmacy	4- 5 p. m.	Dept. of Pharmacy

## EVENING COURSES

These courses of instruction, as reorganized, have been largely attended. Although they cannot be substituted for any of our regular work, leading to degrees, they have proven of great benefit to those who cannot attend instruction during the daytime and to those who desire to pursue special courses of study. General educational credits are not allowed for them. They are designed for special students as well as for members of our regular classes. Certificates will be awarded to those who attend at least 80 per cent of all of the exercises of the course for which they register and who, in addition, receive a satisfactory grade in a final examination. Students may be admitted at any time at the discretion of the instructor in charge. A registration fee of \$6.00 is required of each student. The courses are given on three evenings of each week from Monday, October 3, 1927, to Friday, April 29, 1928. Students may pursue more than one of the courses offered during the same semester. Fees are payable in advance and are not returnable. The following courses of instruction are offered:

**Chemistry, Phr. 20-e—Pharmaceutical Qualitative Analysis.** 1 hour classroom and 2 hours laboratory each week. Fee \$25 each session. Professor SCHAEFER and Mr. JAYNE.

7:30-10:30 p. m., Friday.

Lecture, 7:30-8:20 p. m.

Laboratory, 8:30-10:30 p. m.

This course, which presupposes a knowledge of general pharmaceutical chemistry is designed to train students in the qualitative tests for metal-ions included in the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

Deposit for breakage, \$10.

**Chemistry, Phr. 21-e—Pharmaceutical Qualitative Analysis.** 1 hour classroom and 2 hours laboratory work each week. Fee, \$25 each session. Professor SCHAEFER and Mr. JAYNE.

7:00-10:00 p. m., Friday.

Laboratory, 7:00-9:00 p. m.

Lecture, 9:10-10:00 p. m.

This course is a continuation of 20-e with particular reference to the U. S. P. tests for acid-ions. (Conditional on the enrollment of ten students.)

Fee for breakage, \$10.

**Chemistry, Phr. 22-e—Pharmaceutical Volumetric Analysis.** 1 hour classroom and 2 hours laboratory work. Fee \$25 each session. Professor SCHAEFER and Mr. JAYNE.

7:00-10:30 p. m., Friday.

This course is designed to give training in the volumetric assays of the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

Deposit for breakage, \$10.

**Chemistry, Phr. 24-e—Examination of Urine.** First semester, 1 hour lecture and 2 hours laboratory work. Fee \$25. Professor SCHAEFER and Mr. JAYNE.

7:15-10:30 p. m., Friday.



Lecture, 7:20-8:20 p. m., Friday.

Laboratory, 8:30-10:30 p. m., Friday.

In this course the qualitative and quantitative chemical tests of normal and pathological urine are studied; also the preparation and standardization of the necessary reagents. (Conditional upon the enrollment of twenty students.)

Deposit for breakage, \$10.

**Chemistry, Phr. 25-e—Examination of Urine.** 1½ hours lecture and 2 hours laboratory work. Fee \$25. Professor SCHAEFER and Mr. JAYNE.

7:30-10:00 p. m., Friday.

Lecture, 7:30-8:00 p. m., Friday.

Laboratory, 8:20-10:00 p. m., Friday.

In this course, a continuation of 24-e, the gravimetric, polariscopic, colorimetric and microscopic examination of urine is studied. (Conditional upon the enrollment of twenty students.)

Deposit for breakage, \$10.

**Pharmacy, Phr. 12-e—Manufacturing Pharmacy.** 1½ hours lectures and 1½ hours laboratory work each week. Fee \$35 each session. Professor BROWN and assistants.

7:30-10:30 p. m., Tuesday.

This course is of value to those desiring to prepare and place upon the market lines of specialties. The course is elastic and designed to meet individual requirements. One may take up the study of an entire series of preparations, or any one preparation in considerable detail. (Conditional upon the enrollment of ten students.)

**Pharmacy, Phr. 14-e—Manufacture of Cosmetics and Toilet Preparations.** 1 hour lecture and 2 hours laboratory work each week. Fee \$35 each session. Professor WIMMER and assistants.

7:30-10:30 p. m., Tuesday. Main lecture room, Pharmacy.

This course affords a thorough review of the entire subject of cosmetics and toilet preparations, their composition and manufacture. Face lotions, hair dyes and other hair preparations, face powders and paints, cream (greasy, non-greasy and vanishing), toothwashes and powders, etc., are studied and certain types are manufactured. (Conditional upon the enrollment of ten students.)

A summary of the lecture topics will be furnished upon request.

**Pharmacy, Phr. 15-e—Perfume Materials and Perfumery.** 1 hour lecture and 2 hours laboratory work each week. Fee, \$50 each semester. Professor WIMMER and assistants.

Monday 7 p. m. Main Lecture Hall.

This course is of value to persons employed in essential oil houses and perfume manufacturing establishments and others desiring to enter this field. The lectures are illustrated with lantern slides and samples of the materials under discussion are exhibited. The laboratory work comprise the determination of physical constants, testing for impurities, etc. A systematic course in nose-training is included. The second semester consists mainly of practical work.

A summary of the course will be mailed upon request.

**Bacteriology, Phr. 18-e—Principles and Practice.** 1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester, \$10 breakage deposit. Professor HART and assistants.

Monday—Lectures 7:00-8:00 p. m. Room 42, Pharmacy.

Monday—Laboratory 8:00-10:00 p. m.

This course includes the bacterial examination of sputum, excreta, water, air, milk and ice.

Special attention is given to the methods of disinfection and sterilization. The major portion of the time is devoted to the cultivation, morphology and staining properties of the more common pathogenic bacteria.

**Blood Analysis 19-e**—1 hour lecture and 2 hours laboratory work each week, 1 semester. Fee \$40 each semester, \$10 breakage deposit. Professor HART and assistants.

7:00-10:00 p. m., Tuesday.

Tuesday—Lecture 7:00-8:00 p. m.

Tuesday—Laboratory 8:00-10:00 p. m.

The entire semester is devoted to the chemical analysis of blood, the preparation of blood smears and blood count.

**20-e—Parasites of the blood and intestines.** 1 hour lecture and 2 hours laboratory work each week, 1 semester. Fee \$40 each semester, \$10 breakage deposit. Professor HART and assistants.

Tuesday—7:00-10:00 p. m.

In this course chief attention is given to changes from normal to abnormal blood due to parasites as well as the more pathogenic blood and intestinal parasites.

Time is also allotted to the mycology of foods.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

THE ALUMNI ASSOCIATION OF THE COLLEGE OF  
PHARMACY OF THE CITY OF NEW YORK

OFFICERS AND COMMITTEES, 1927-1928

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*Honorary President*

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*Committee on Papers and Queries*

C. P. WIMMER

ADOLPH HENNING

JOHN H. HECKER

*Delegates to the American Pharmaceutical Association*

GEO. C. DIEKMAN

C. P. WIMMER

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*Delegates to the New York State Pharmaceutical Association*

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HUGO H. SCHAEFER

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*Delegates to the New Jersey Pharmaceutical Association*

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CHARLES W. HOLTON

HARRY E. BISCHOFF

*Delegates to the Connecticut Pharmaceutical Association*

CURT P. WIMMER

HAROLD LEVY

FRANK V. DAMTOFT

## ENDOWMENTS

For ninety-seven consecutive years the College of Pharmacy of the City of New York has maintained its annual courses of instruction for the education and training of pharmacists. That this instruction has exhibited a steady extension and improvement is clearly recorded in the successive editions of its annual prospectus. That such a result could not have been attained by the use of students' fees, unaided by other resources, will be readily understood by all who have had experience in educational administration. Such assistance may be said to have begun with the generous contribution of free instruction services by Professors Edward R. Squibb, Charles F. Chandler and others, in the early history of the institution, and to have continued with the services of their successors, and the unpaid management of officers and trustees. At various times, financial crises have been met by generous donations of money by officers and members, and occasionally by outside friends. In some cases, as when new quarters were to be secured, a new building was to be erected, or herbarium or apparatus to be bought, the sums thus contributed have been large, considering the resources of those contributing.

As indicated in the preceding pages of this *Announcement*, in addition to the regular course of two years, leading to the degree of Ph.G., the College now provides a regular course of three years, leading to the degree of Ph.Ch., with an additional year of optional work, leading to the degree of B.S. in Phar.

Plans for a graduate course of two years, leading to the degree of Doctor of Pharmacy, have been perfected by the Faculty, but cannot be carried out at the present time, for want of the necessary material resources. That the strain of such a charge upon those resources is very great, calling as it does for an increased teaching force, newly equipped rooms and additional apparatus, requires no explanatory statement.

It is not to be expected that the scanty revenue derived from the fees of the small number of students who will pursue these advanced studies will begin to provide the necessary means for meeting the additional expenditures. The College must undertake these burdens as its contribution to pharmaceutical education.

Under such conditions, it is felt that an appeal should be made to those who are interested in promoting educational development in America to give their favorable consideration and to lend their financial aid to the present efforts of the School.

Since the actual instruction work of the school calls for the expenditure of our entire income received from student's fees, it follows that we are compelled, like other schools, to seek other sources of income for meeting unusual expenses.

Under the stress of immediate necessity, we have recently completed and occupied an extension to our former building, costing approximately \$300,000. This work was undertaken in the belief that the necessary amount would be contributed by the alumni and friends of the College. Up to the present time, only about one-half of the amount has been subscribed, and we present a special appeal for contributions to this cause.

There are also a number of ways in which comparatively small contributions will be immediately productive of great good in specific directions, and several of these are discussed below.

#### LIBRARY MAINTENANCE

The library facilities required by men engaged in advanced studies are necessarily much more extensive than those now provided by the College. The research work in which such men will engage will call for a full supply of works of reference, not only in pharmaceutical subjects, but in the sciences contributory to pharmacy. Generous friends of the College, and one such in particular, have made frequent and extensive contributions to the Library, but it is highly desirable that an endowment be established that will yield a permanent annual fund of \$500 for such a purpose.

#### APPARATUS

The College, thanks to the generosity of the late Mr. Edward Kemp, possesses a splendid working equipment of physical apparatus, suitable for the ordinary purposes of pharmaceutical education. The advanced work of graduate students will require not only extensive additions, but continuous expenditures for new designs in order to keep pace with discovery and improvement.

An endowment of from \$5,000 to \$10,000 would admirably meet this demand.

#### MUSEUM

With the exception of the National Museum at Washington, there is no extensive pharmaceutical or materia medica museum in this country. Small museums exist in Philadelphia, Detroit, Cincinnati, at the New York Botanical Garden and elsewhere, but nowhere is there a museum proper comparable with those in London and Berlin. Civic pride, if no other consideration, should suffice to secure the establishment in New York City of a museum proportionate with the importance of the city as the port of entry for more than three-fourths of the drugs received into the United States. There are, however, other considerations of far greater importance. Scarcely a week passes without more than one inquiry from importers, brokers or merchants, and even from the City and Federal Departments, for unobtainable information concerning commercial articles of this class.

There should be some institution to which such inquirers could turn with reasonable certainty of an accurate reply. Furthermore, the ambition to supply Doctors of Pharmacy who are competent to meet all demands made upon them, even for the discovery of desired unknown facts, renders it imperative that a storehouse of materials for investigation should be available. The ideal location for such a museum is with the department of pharmacy of a strong and active university.

Such a museum involves more than a mere collection of labeled articles in cases. It calls for a comprehensive plan providing for future accessions, and for investigating the utility of new products. This calls for a curator with an encyclopedic knowledge of the subject, and qualified to pursue original researches.

Such an institution, thus equipped, could provide a continuous supply of original contributions in economic botany, connected upon the one side with sources of sound scientific information and authentication, and upon the other with the material welfare of our people.

A more creditable and permanent monument to its donor could scarcely be conceived. To establish such a museum, and also to provide properly for its care and maintenance, would require from \$100,000 to \$150,000.

#### ADDITIONAL PROFESSORSHIPS

The establishment of a number of lecture courses to be served by specialists in their respective subjects is an essential requisite in the work of the final years of an advanced course. Perhaps the most important of such subjects is the history of chemistry and pharmacy. The provision of even a short series of lectures would do much to point the way to investigation in the light of former achievement.

Those desiring to contribute toward any of the purposes named, or others in which they may be interested, will upon request be supplied with a form which may be used for the purpose.

## REGISTER OF GRADUATES

### PHARMACEUTICAL CHEMISTS, JUNE 1, 1926

- Alfieri, Joseph Domenic  
282 Main Street, Waterbury, Conn.
- Dimler, Marguerite Caroline  
104-9th Street, Hoboken, N. J.
- Hauck, Rudolf Otto  
3511 34th Street, Jackson Heights, N. Y.
- Levin, Fred  
77-12th Avenue, Paterson, N. J.
- Liberman, Samuel Solomon  
17 Attorney Street, New York, N. Y.
- Miale, Joseph Peter  
341 East 16th Street, New York, N. Y.
- Sabella, John Frank  
91 Church Avenue, Brooklyn, N. Y.
- Triolo, Peter  
79 Jamaica Avenue, Brooklyn, N. Y.
- Trumpler, Philip  
681 East 221st Street, New York, N. Y.
- (9)

### BACHELORS OF SCIENCE IN PHARMACY, JUNE 1, 1926

- Braff, Alexander Elias  
106 Ridge Street, New York, N. Y.
- Hutchinson, Mrs. Emma H. Memphis, Tenn.  
(2)
- PHARMACEUTICAL CHEMISTS, OCTOBER 27, 1926
- Failmezger, Theodore Richard  
Metuchen, N. J.
- Gutchin, Samuel  
66 Powell Street, Brooklyn, N. Y.
- Milliman, George E.  
42 Rowley Street, Rochester, N. Y.
- Rang, Irving Franklin  
697 Halsey Street, Brooklyn, N. Y.
- Ricciardelli, Sylvia Helen  
241 Montgomery Street, Jersey City, N. J.
- Rovero, Elizabeth Rita  
304 East 28th Street, New York, N. Y.
- Sager, Julius  
95 West 41st Street, Bayonne, N. J.
- (7)

### GRADUATES IN PHARMACY, MAY 15, 1926

- Abbate, Rosario  
182 Cooper Street, Brooklyn, N. Y.
- Abeloff, Aaron H.  
125 No. White Street, Shenandoah, Pa.
- Abrahamson, Abraham E.  
133 Avenue D, New York City
- Adler, Max Emanuel  
228 East 99 Street, New York City
- Aizerman, Jack  
104 East 2 Street, New York City
- Allen, Solomon Samuel  
860 East 161 Street, New York City
- Ambrose, Dominick Bernard  
71 Congress Street, Newark, N. J.
- Anzelmi, Edward Philip  
461 Rogers Avenue, Brooklyn, N. Y.
- Arndt, James Russell  
128 East 11 Street, Berwick, Pa.
- Baderman, Michael  
33 Avenue D, New York City
- Bankoff, Nathan  
230 Monroe Street, New York City
- Barreca, James Vincent  
25 Forsyth Street, New York City
- Baum, Jonathan  
142 Morton Place, New York City
- Becker, Julius Linden  
756 Saratoga Avenue, Brooklyn, N. Y.

- Beeber, Morris  
134 Clymer Street, Brooklyn, N. Y.
- Bellis, Bernard  
55 Clinton Place, New York City
- Bennett, Marion  
950 Marcy Avenue, Brooklyn, N. Y.
- Berkowitz, George  
1074 Eastern Parkway, Brooklyn, N. Y.
- Berkowitz, Samuel  
36 Bristol Street, Brooklyn, N. Y.
- Bevacqua, Alfred  
298 Newark Avenue, Jersey City, N. J.
- Bonanno, Michael  
2120 Jerome Avenue, New York City
- Borsuk, Irving M.  
2348 Benson Avenue, Brooklyn, N. Y.
- Bregman, Alexander  
128 East 104 Street, New York City
- Brodawsky, Isador  
530 East 134 Street, New York City
- Brown, Emanuel  
2918 Fulton Street, Brooklyn, N. Y.
- Brownstein, Samuel Hyman  
38 Seigel Street, Brooklyn, N. Y.
- Brunswick, Jerome Alfred  
119 East 83 Street, New York City
- Buccino, Raphael Joseph  
307 Nicol Street, Bridgeport, Conn.

- Canter, Herbert B.  
1890 Seventh Avenue, New York City
- Cantor, Louis Harry  
340 Pleasant Street, Gardner, Mass.
- Cappelli, Antoinette  
2322 Belmont Avenue, New York City
- Chary, Philip  
70 Grafton Street, Brooklyn, N. Y.
- Chryn, Julius Stephen  
1565 Grand Concourse, New York City
- Cipes, Leo R.  
694 Melrose Avenue, New York City
- Clericuzio, Thomas  
517 Lincoln Street, Union City, N. J.
- Cody, Catherine Elizabeth  
94 Main Street, Canaan, Conn.
- Cohen, Abraham Irving  
569 Van Sicklen Avenue, Brooklyn, N. Y.
- Cohen, Phillip  
80 Fifth Avenue, Long Branch, N. J.
- Cohn, George  
264 Hamilton Avenue, Paterson, N. J.
- Connors, Edward Dennis  
205 Rockwell Avenue, Long Branch, N. J.
- Cooper, Jack  
3885 Bedford Avenue, Brooklyn, N. Y.
- Coronato, Joseph James  
168 Hope Avenue, Rosebank, S. I.
- Coyen, Arthur Emile  
136 Weehawken Street, Union City, N. J.
- Cutler, Samuel Melvin  
1265 Spoffard Avenue, New York City
- Deutsch, David  
85 Lewis Street, New York City
- Diamond, Joseph  
375 Beekman Avenue, New York City
- DiMattina, Bartholomew  
226 DeGraw Street, Brooklyn, N. Y.
- DiTolla, Alfred James  
370 Hallett Street, Astoria, N. Y.
- Divisek, Frank  
433 East 75 Street, New York City
- Drach, Isidore  
1931 Walton Avenue, New York City
- Dreyer, Isaac  
226 East Broadway, New York City
- Drosness, Benjamin  
1580 Eastern Parkway, Brooklyn, N. Y.
- Durfee, Olive  
333 Martin Street, San Jose, Cal.
- Ehrlich, Edward  
338 Avenue A, Bayonne, N. J.
- Ehrlich, Louis  
193 Highland Boulevard, Brooklyn, N. Y.
- Eisen, Nathan  
1557 St. Mark's Avenue, Brooklyn, N. Y.
- Fankuchen, Irving Stone  
1302 Carroll Street, Brooklyn, N. Y.
- Fein, Ely  
150 West 123 Street, New York City
- Feinberg, Harry Isidore  
340 Ellery Street, Brooklyn, N. Y.
- Feldman, Boris  
2609 Briggs Avenue, New York City
- Feller, Henry  
1886 Douglass Street, Brooklyn, N. Y.
- Fisher, Joseph H.  
2238 Morris Avenue, New York City
- Fox, Louis Asir  
24-10th Street, West New York, N. J.
- Friedbauer, Lewis M.  
203 Park Avenue, Passaic, N. J.
- Friedman, Louis  
72 East 110 Street, New York City
- Friedman, Phillip  
312 East 8 Street, New York City
- Fuchs, Isidore  
604 East 9 Street, New York City
- Garfinkle, Howard  
48 East 15 Street, Bayonne, N. J.
- Gavlas, Frank E.  
1476 E. Main Street, Bridgeport, Conn.
- Giannunzio, Vincent James  
Box 190, Mamaroneck, N. Y.
- Gillette, Samuel  
85 Madison Avenue, Bridgeport, Conn.
- Ginsberg, David  
91 Woodruff Avenue, Brooklyn, N. Y.
- Glickman, Osias  
349 So. 4 Street, Brooklyn, N. Y.
- Gluckman, Mark L.  
1164 Rogers Avenue, Brooklyn, N. Y.
- Gold, Charles  
510 Marion Street, Brooklyn, N. Y.
- Gold, Herbert  
221 East 121 Street, New York City
- Goldberg, Harold T.  
1319-50th Street, Brooklyn, N. Y.
- Goldberg, Herbert William  
1858 Seventh Avenue, New York City
- Goldberg, Julius  
20 Rutgers Place, New York City
- Goldberg, Samuel  
213 Seigel Street, Brooklyn, N. Y.
- Goldfarb, Louis  
1346 Fulton Avenue, New York City
- Goldin, Frank  
312 Van Nostrand Avenue, Jersey City, N. J.
- Goldsmith, Jacob  
56 Second Avenue, New York City
- Goldstein, Archie  
107-21 117th Street, Richmond Hill, N. Y.
- Goldstein, Isidore Jacob  
527 Hinsdale Street, Brooklyn, N. Y.
- Goldstein, William Morris Monticello, N. Y.
- Goliger, Morris  
2069-60th Street, Brooklyn, N. Y.



- Gottlieb, Eugene  
64½ West 181 Street, New York City
- Gottlieb, Hyman  
830 Belmont Avenue, Brooklyn, N. Y.
- Gottlieb, Louis  
Tannersville, N. Y.
- Govendy, Morris  
219 East 121 Street, New York City
- Gratt, Michael  
957 Rogers Place, New York City
- Gray, Donald Arthur  
1517 Neilson Street, Utica, N. Y.
- Greek, James  
528 Main Street, Union City, N. J.
- Greenberg, Lillian R.  
608 Prospect Avenue, New York City
- Greenberg, Morris Milton  
58 John Street, New Brunswick, N. J.
- Greenstein, Murray  
106 Marcy Place, New York City
- Grosman, Abraham  
985 E. Tremont Avenue, New York City
- Grossmann, Nollie  
1040 Kelly Street, New York City
- Guisado, Frank Edward  
100 Pineapple Street, Brooklyn, N. Y.
- Hall, Charles Dixon  
10 Hartwell Street, New Brunswick, N. J.
- Hamburger, Hyman  
229 East 103 Street, New York City
- Harris, Joseph  
775 East 2 Street, Brooklyn, N. Y.
- Hershkowitz, Leo  
1345 Brook Avenue, New York City
- Herzog, Herman Joseph  
1208-51st Street, Brooklyn, N. Y.
- Hunt, William Edgar  
99 Bedford Road, Pleasantville, N. Y.
- Hurwitz, Abe  
222 Van Buren Street, Syracuse, N. Y.
- Isaacs, Irving Louis  
1046 East 29 Street, Brooklyn, N. Y.
- Joffe, Abram Edward  
350 Belmont Avenue, Paterson, N. J.
- Johnson, Eric P.  
211 East 33 Street, New York City
- Kaner, Paul  
332 East 18 Street, New York City
- Kantrowitz, Morris  
1551 So. Boulevard, New York City
- Karasick, Abraham  
55 Cuba Place, Rochester, N. Y.
- Karmazin, Stanley  
1355 East 9 Street, Brooklyn, N. Y.
- Kasday, Moe  
97-52 Corona Avenue, Corona, N. Y.
- Katz, Benjamin  
1956-69th Street, Brooklyn, N. Y.
- Katzman, Louis  
381 Grand Street, New York City
- Kaufman, Howard  
1129 Vyse Avenue, New York City
- Kessler, Nathan  
26 Fayette Street, Brooklyn, N. Y.
- Kirschstein, Nathan  
100 Keap Street, Brooklyn, N. Y.
- Kitts, Edward Angermire  
Richfield Springs, N. Y.
- Klappert, Samuel  
790 Riverside Drive, New York City
- Koch, Leo Bernard  
219 East 28 Street, New York City
- Kornfeld, Abraham  
1606 Park Place, Brooklyn, N. Y.
- Koslosky, Henry  
366 Kingston Avenue, Brooklyn, N. Y.
- Koslow, Nathan Robert  
1948 Prospect Avenue, New York City
- Kossove, Sidney  
1267-40th Street, Brooklyn, N. Y.
- Krichev, Barney  
2160 Bath Avenue, Brooklyn, N. Y.
- Kroe, Andrew  
835 Beck Street, New York City
- Laites, Morris  
491 Main Street, Ansonia, Conn.
- Lang, Albert Béla  
767 East 156 Street, New York City
- LaSala, Charles  
782 Madison Street, Brooklyn, N. Y.
- Lasky, Reuben  
59 Herman Street, Rochester, N. Y.
- Lauri, Michael Aloysius  
180 Hooker Place, Port Richmond, N. Y.
- Lazarowitz, Mae  
382 Georgia Avenue, Brooklyn, N. Y.
- Leader, Louis M.  
145 North Street, Bennington, Vt.
- Lebediger, Samuel  
412-420 Pulaski Street, Brooklyn, N. Y.
- Lee, Anderson F.  
2324 Eighth Avenue, New York City
- Lefkowitz, Sidney  
109 So. 51 Street, Corona, N. Y.
- Levine, Anna Estelle  
Woodridge, N. Y.
- Levine, Sophie  
Ashley Falls, Mass.
- Lerner, Isidore  
1723-77th Street, Brooklyn, N. Y.
- Levitt, Solomon  
180 Varet Street, Brooklyn, N. Y.
- Levy, Louis  
512 Blum Street, Union Hill, N. J.
- Liebowitz, David  
280 So. 3 Street, Brooklyn, N. Y.
- Lipkin, Alexander  
774 Park Avenue, W. New York, N. J.
- Lipschetz, Simon  
185 Ferry Street, New Haven, Conn.

- Lipschutz, Sara K.  
73 So. 9 Street, Brooklyn, N. Y.
- Lipsett, Harold  
549 West 163 Street, New York City
- Litsky, Max  
72 Central Street, Ansonia, Conn.
- Loomis, George Meade  
371 Park Street, Fulton, N. Y.
- Lopez de Victoria, Jose  
965 Lexington Avenue, New York City
- Lucrezia, Vincent Nicholas  
150 Elm Street, Yonkers, N. Y.
- Lupinacci, Joseph  
327 East 113 Street, New York City
- Lyons, James  
Kill Avenue, Butler, N. J.
- McGill, James Francis  
611 East 83 Street, New York City
- McGuire, Michael Leo  
1120 Neilson Street, Utica, N. Y.
- Maline, John  
130 Essex Street, Jersey City, N. J.
- Malorofsky, David  
23 Suffolk Street, New York City
- Mandel, Jacob  
41 Forsyth Street, New York City
- Mandel, Nathan  
400 East Houston Street, New York City
- Manheimer, Raymond Benjamin  
300 West 108 Street, New York City
- Marcus, Sam  
10 Meadow Street, Kingston, N. Y.
- Margolis, Joseph Samuel  
1740 Weeks Avenue, New York City
- Margulies, Harry Philip  
26 Bergen Avenue, Jersey City, N. J.
- Martin, Naomi Amy  
Westhampton Beach, N. Y.
- Mauro, Thomas Joseph  
111 Park Avenue, Elberon, N. J.
- Mazilauskas, Edward Thomas  
58 Hotchkiss Street, Naugatuck, Conn.
- Mazlish, David J.  
137a DeKalb Avenue, Jersey City, N. J.
- Millman, Morris  
5624 Eighth Avenue, Brooklyn, N. Y.
- Mininberg, Meyer  
863 Beck Street, New York City
- Mintzer, Morris Louis  
177 Intervale Avenue, Burlington, Vt.
- Mistretta, Peter  
1715-73rd Street, Brooklyn, N. Y.
- Moore, Ammon, Maurice  
1135 E. Terrell Avenue, Ft. Worth, Texas
- Mouber, Isaac  
59 East 118 Street, New York City
- Murger, William  
418 Georgia Avenue, Brooklyn, N. Y.
- Nelson, Isaac  
Yarmouth, Nova Scotia
- Newberger, Max  
568 So. 19 Street, Newark, N. J.
- Newman, Irving  
369 Second Street, Brooklyn, N. Y.
- Nigrine, Nissim H.  
1465 Fifth Avenue, New York City
- O'Brien, Samuel Graham  
14 Smith Street, Portchester, N. Y.
- O'Connor, Joseph John  
485 Monroe Avenue, Elizabeth, N. J.
- Oring, Joseph David  
461 East 144 Street, New York City
- Osterweil, Jacob  
12 West 113 Street, New York City
- Padwisocka, Louis K.  
412 Hegeman Avenue, Brooklyn, N. Y.
- Papazian, Garabed Simon  
160 East 62 Street, New York City
- Pelletiria, Salvatore Anthony  
629 Broadway, Brooklyn, N. Y.
- Perman, Morris  
948 Union Avenue, New York City
- Perrine, Peter William  
6408-15th Avenue, Brooklyn, N. Y.
- Peshkin, Gershon  
33 Guilden Street, New Brunswick, N. J.
- Pillitteri, Frances  
1702 Lexington Avenue, New York City
- Petruskie, Anthony Vincent  
Plandome, Long Island, N. Y.
- Pitts, William Milton  
137 West 142 Street, New York City
- Pospisil, Anton Joseph  
30-70-32nd Street, Astoria, N. Y.
- Prestia, Ignatius  
167 Graham Avenue, Brooklyn, N. Y.
- Rabinowitz, David  
716 East 5th Street, New York City
- Rabinowitz, Jacob  
57 Shpoler Avenue, Corona, N. Y.
- Rabinowitz, Rubin Louis  
118 Oak Street, Hazelton, Pa.
- Raphael, Israel  
2363 Valentine Avenue, New York City
- Reese, William Lockett  
262 East Broadway, New York City
- Reinstein, Leon  
97 Lee Avenue, Brooklyn, N. Y.
- Resner, Israel  
710 East 5 Street, New York City
- Rheinstein, Harry Jacob  
163 East 94 Street, Brooklyn, N. Y.
- Richman, Louis  
187 Grafton Street, Brooklyn, N. Y.
- Rimer, Max  
320 East 91 Street, New York City
- Risberg, Leo Joseph  
118 West 109 Street, New York City

- Rodman, Morris  
43 Grafton Street, Brooklyn N. Y.
- Romano, Joseph George  
15 West Henry Street, Stamford, Conn.
- Rosenberg, Manuel Morton  
314 Wilkins Street, Rochester, N. Y.
- Rosenberg, Max  
875 Brooklyn Avenue, Brooklyn, N. Y.
- Rosenblatt, Samuel Jack  
88 East 111 Street, New York City
- Rosenfield, William  
6 West 98 Street, New York City
- Rosenfeld, Philip  
69 Canonbury Road, Jamaica, N. Y.
- Rosenstein, Hyman  
1153-41st Street, Brooklyn, N. Y.
- Sacco, Leonard Gregory  
123 So. 7 Avenue, Long Branch, N. J.
- Salem, Louis Harry  
3705-64th Street, Woodside, N. Y.
- Salutsky, Isidore  
70 Wilson Street, Brooklyn, N. Y.
- Sasse, Henry Alois, Jr.  
315 East 58 Street, New York City
- Schine, Samuel  
697 Pembroke Street, Bridgeport, Conn.
- Schwartz, Benjamin  
217 Bristol Street, Brooklyn, N. Y.
- Schwartz, Jack  
329 Graham Avenue, Brooklyn, N. Y.
- Scilipoti, Ludwig William  
28 Gibson Avenue, Great Kills, L. I.
- Seaman, Edwin Crawford  
449 First Street, Newburgh, N. Y.
- Segal, Norman  
932 Kelly Street, New York City
- Seider, Solomon  
86 West 183 Street, New York City
- Seiler, Albert  
137 Seventh Avenue, Brooklyn, N. Y.
- Sepkaski, Paul  
65 Canal Street, Ansonia, Conn.
- Sewell, Milton Dulany  
117 Palisade Avenue, Jersey City, N. J.
- Shenit, Harry  
347 Bradford Street, Brooklyn, N. Y.
- Sherman, Irving  
318 East 100 Street, New York City
- Siegel, Edward  
63 Forsyth Street, New York City
- Silberquit, Paul  
217 Pennsylvania Avenue, Brooklyn, N. Y.
- Silver, Samuel Robert  
2077-60th Street, Brooklyn, N. Y.
- Silverman, Jack  
177 East 100 Street, New York City
- Silverman, Jacob  
258 Palisade Avenue, Jersey City, N. J.
- Simrin, Leonard  
Greenfield, N. Y.
- Sinakin, Richard Max  
404 Palisade Avenue, Jersey City, N. J.
- Sirkus, John  
640 Blake Avenue, Brooklyn, N. Y.
- Smith, Lawrence  
2072-61st Street, Brooklyn, N. Y.
- Smith, Robert Reuben  
2072-61st Street, Brooklyn, N. Y.
- Snyder, Rolland Stanley  
2543 Marian Avenue, New York City
- Sobell, Martin L.  
1015 Surf Avenue, Coney Island, N. Y.
- Soriano, Charles  
51 Thompson Street, Raritan, N. J.
- Spellman, Glenn Joseph  
2537 Valentine Avenue, New York City
- Spevack, Samuel William  
369 New Street, Perth Amboy, N. J.
- Stahl, Charles William  
204 Delancey Street, New York City
- Steele, Nathan  
483 East 170 Street, New York City
- Steinfeld, William Morris  
81 Avenue C, New York City
- Stelmah, Samuel  
1687 Vyse Avenue, New York City
- Stenger, Harry Charles  
1862 Grove Street, Brooklyn, N. Y.
- Stitelman, Hyman  
1712 Bath Avenue, Brooklyn, N. Y.
- Strauss, Joseph  
130 West 195 Street, New York City
- Sudakow, Morris  
111 Henwood Street, New York City
- Suznow, Isidor  
24 East 99 Street, New York City
- Sukenik, Harry  
1848 Monroe Avenue, New York City
- Tammaro, Joseph Irvine  
2 Rockledge Avenue, Ossining, N. Y.
- Tanklefsky, Arthur  
1219 Gilbert Place, New York City
- Taubert, Charles Frederick  
604 No. Locust St. Hazelton, Pa.
- Teitelbaum, Bertha  
195 Broad Street, Stapleton, N. Y.
- Thorner, Isidor  
90 Morton Street, Brooklyn, N. Y.
- Tittler, Murray  
2142 Atlantic Avenue, Brooklyn, N. Y.
- Trapani, Salvator  
8657 Bay 16 Street, Brooklyn, N. Y.
- Trauner, Charles  
201 East 58 Street, New York City
- Tuvim, Abraham Abby  
7 West 112 Street, New York City
- Valenti, James Joseph  
551 Second Avenue, New York City

- Venickoff, Solomon  
911 Longwood Avenue, New York City
- Volkovitzky, Benzion K.  
364 Palisade Avenue, Jersey City, N. J.
- Waldinger, Leo  
150 Keap Street, Brooklyn, N. Y.
- Waldman, Sidney  
34 No. Grant Street, Wilkes-Barre, Pa.
- Wandruff, Benjamin  
1348 Clinton Avenue, New York City
- Weltman, Louise  
486 East 138 Street, New York City
- Weiswasser, David  
1457 Eastern Parkway, Brooklyn, N. Y.
- Wexler, David  
614 East 11 Street, New York City
- Wiener, Max  
35 Clinton Street, Paterson, N. J.
- Wilensky, Morris  
52 Stephen Street, New Haven, Conn.
- Winer, Russell  
442 East 9 Street, New York City
- Winger, Samuel  
2226 Adams Place, New York City
- Wolzinger, Nathan  
154 So. 3 Street, Brooklyn, N. Y.
- Youngstein, Elias  
403 Manhattan Avenue, New York City
- Zalowitz, Morris Daniel  
86 Marshall Street, Elizabeth, N. J.
- Zelnick, Isidore  
321 East 12 Street, New York City
- Zimmerman, William  
108 West 90 Street, New York City
- Zwillich, Ignatz  
801 Freeman Street, New York City

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## GRADUATES IN PHARMACY, OCTOBER 5, 1926

- Adrezin, Edward H.  
405 Hinsdale Street, Brooklyn, N. Y.
- Berg, Henry  
169 East 105th Street, New York, N. Y.
- Brooks, Solomon  
2131 Ocean Avenue, Brooklyn, N. Y.
- Cutler, George  
1268 Spofford Avenue, New York, N. Y.
- De Cesare, Nicholas  
236 West 10th Street, New York, N. Y.
- Durst, Benjamin  
264 East 2nd Street, New York, N. Y.
- Edlich, Adolph A.  
361 East 50th Street, New York, N. Y.
- Eglichen, Nathan  
1604 Madison Avenue, New York, N. Y.
- Emdin, Loftus Edward, Jr.  
1556 Howard Avenue, Utica, N. Y.
- Essner, Isidore  
382 South 3rd Street, Brooklyn, N. Y.
- Eyskens, Leo Joseph  
618 Washington Street, Hoboken, N. J.
- Florin, Sidney  
622 Ocean Parkway, Brooklyn, N. Y.
- Friedman, Gustav  
1054 Avenue C, Bayonne, N. J.
- Goldblatt, Harold  
768 Fox Street, New York, N. Y.
- Granata, James Innocenzo  
59 Bowers Street, Jersey City, N. J.
- Hawkins, Ralph Abbey  
134 West 133rd Street, New York, N. Y.
- Jacobson, Louis Malcolm  
43 Sylvan Avenue, New Haven, Conn.
- Langheinz, Louis E. G.  
857 Elizabeth Avenue, Elizabeth, N. J.
- Levine, Marguerite A.  
5002-16th Avenue, Brooklyn, N. Y.
- Megibow, Joseph  
501 Palisade Avenue, West New York, N. J.
- Miller, Henry Mesick  
28 Ibis Street, Forest Hills, N. Y.
- Nava, Dominick  
226 Carroll Street, Brooklyn, N. Y.
- Newman, Barnet  
90 Grafton Street, Brooklyn, N. Y.
- Perrella, William Camillo  
2105 Beverly Road, Brooklyn, N. Y.
- Rippner, Philip  
18 Lawrence Street, So. Norwalk, Conn.
- Royal, Solomon  
386 Hillside Avenue, Jamaica, N. Y.
- Schneider, William Edward  
830 Saratoga Avenue, Brooklyn, N. Y.
- Siegle, Irving Maurice  
520 Broadway, Bayonne, N. J.
- Singer, Abraham  
1424 Bryant Avenue, New York, N. Y.
- Sowersby, Winford Earl  
66 West 1st Street, Mt. Vernon, N. Y.
- Spector, George  
4147 Arthington Street, Chicago, Ill.
- Tewksbury, Roland Humphrey  
99 Seventh Street, Bangor, Me.
- Waxman, Isaac  
112 Goerck Street, New York, N. Y.
- Zeichner, Isadore  
226 Adam Street, Hoboken, N. J.

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## REGISTER OF STUDENTS, SESSION OF 1926-1927

## SENIOR UNIVERSITY CLASS

Dimler, Marguerite Caroline  
104 Ninth Street, Hoboken, N. J.  
Gutchin, Samuel  
66 Powell Street, Brooklyn, N. Y.  
Hauck, Rudolf Otto  
3511 34th Street, Jackson Heights, N. Y.  
Levin, Fred 77-12th Avenue, Paterson, N. J.  
Lieberman, Samuel Solomon  
17 Attorney Street, New York, N. Y.  
Macсата, William J.  
540 West 189th Street, New York, N. Y.  
Rang, Irving Franklin  
697 Halsey Street, Brooklyn, N. Y.  
Trumpler, Philip  
681 East 221st Street, New York, N. Y.

(8)

## JUNIOR UNIVERSITY CLASS

Adams, Joseph Edison  
63 Hopkins Avenue, Jersey City, N. J.  
Anzelmi, Edward  
461 Rogers Avenue, Brooklyn, N. Y.  
Bevacqua, Alfred  
369 Third Street, Jersey City, N. J.  
Brunswick, Jerome A.  
41 West 96 Street, New York, N. Y.  
Buccino, Raphael Joseph  
307 Nichol Street, Bridgeport, Conn.  
Cody, Catherine Elizabeth  
94 Main Street, New Canaan, Conn.  
Goldberg, Samuel  
213-15 Seigel Street, Brooklyn, N. Y.  
Guisado, Frank Edward  
29 Willow Street, Brooklyn, N. Y.  
Johnson, Eric P.  
211 East 33 Street, New York, N. Y.  
Kitts, Edward Angermire  
Richfield Springs, New York, N. Y.  
Malorofsky, David  
23 Suffolk Street, New York, N. Y.  
Moore, Ammon Maurice  
203 West 138 Street, New York, N. Y.  
Mora, Mrs. Olive Durfee  
17 West 121 Street, New York, N. Y.  
O'Brien, Samuel Graham  
14 Smith Street, Pt. Chester, N. Y.  
Pokorny, Frank Joseph  
52-15 Hospel Street, Elmhurst, N. Y.  
Pospisil, Anton Joseph  
467 Third Avenue, Astoria, N. Y.  
Zupp, Edmund Henry  
6 Pine Street, Ellenville, N. Y.

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## SOPHOMORE UNIVERSITY CLASS

Abramowitz, Abraham  
60 East Third Street, New York, N. Y.  
Achilson, Peter Lazarus  
2380-8th Avenue, New York City  
Adler, Alan  
61 East 3 Street, New York, N. Y.  
Amatucci, Laura  
1984-84th Street, Brooklyn, N. Y.  
Baiczer, Abraham Irving  
1072 Union Avenue, New York, N. Y.  
Becker, Herbert Chester  
777 Woodward Avenue, Brooklyn, N. Y.  
Beckerman, Sidney  
1697 Lexington Avenue, New York, N. Y.  
Brooks, Vernon Hazen  
25 Maple Place, Port Chester, N. Y.  
Burch, Egbert A. St. Georges, Bermuda  
Cohen, George 551 Boulevard, Bayonne, N. J.  
Cohen, Irving Samuel  
1121 Tinton Avenue, New York, N. Y.  
Cohen, Morris  
77 Madison Street, New York, N. Y.  
Cohen, Samuel  
2212 Surf Avenue, Brooklyn, N. Y.  
Dick, Lester Colby  
98 Division Street, Keyport, N. J.  
Drucker, David M.  
199 Forsyth Street, New York, N. Y.  
Dubinsky, Isidore  
166 Avenue C, New York, N. Y.  
Einhorn, Charles  
180 Riverdale Avenue, Brooklyn, N. Y.  
Eisenberg, Joseph  
592 West Side Avenue, Jersey City, N. J.  
Epstein, Aaron  
576 Chester Street, Brooklyn, N. Y.  
Epstein, George  
105 Nott Avenue, Long Island City, N. Y.  
Fanelli, Domenick  
547 Fourth Avenue, Brooklyn, N. Y.  
Gattuso, Charles  
22 Rivington Street, New York, N. Y.  
Giordano, Herman  
376 Frankfort Street, Orange, N. J.  
Giovannelli, Dominic  
1263 Herkimer Street, Brooklyn, N. Y.  
Givens, Horace T. F.  
6 Cottage Place, Freehold, N. J.  
Goldberg, Max  
1368 Myrtle Avenue, Brooklyn, N. Y.  
Golden, Jonas  
11a Louis Place, Brooklyn, N. Y.  
Goldman, Harry  
474 Warwick Street, Brooklyn, N. Y.

- Grebel, Pincus  
51 Forsyth Street, New York, N. Y.
- Gregorius, Ruth Anna  
Central Ave. and Rockaway Turnpike,  
Lawrence, N. Y.
- Gross, Samuel  
424 East 5th Street, New York, N. Y.
- Gussow, Charles Meyer  
2295 Morris Avenue, New York, N. Y.
- Herman, Milton  
1464 Seabury Place, New York, N. Y.
- Hodes, Julius  
2362 Ryer Avenue, New York, N. Y.
- Horin, Maynard  
69 Carll Street, Jamaica, N. Y.
- Horowitz, Simon  
127 E. Broadway, New York, N. Y.
- Hurwitz, Morris Herman  
24 Ashford Street, Hartford, Conn.
- Johnson, Cornelius Lee  
828 Corgie Street, Cape May, N. J.
- Kantrowitz, Israel  
195 Madison Street, New York, N. Y.
- Kaplan, Frances Mildred  
Sharon Valley, Conn.
- Katz, Sidney  
211 East 105 Street, New York, N. Y.
- Katzowitz, Morris  
156 So. 8th Street, Brooklyn, N. Y.
- Keller, Joseph  
3258-25th Street, Jackson Heights, L. I.
- Kibbe, August Geissel  
162 Egbert Avenue, W. New Brighton, S. I.
- Klein, Samuel  
340 East 4th Street, New York, N. Y.
- LaMacchia, Mildred Mary  
162 Day Street, New Haven, Conn.
- Lauri, Victor  
210 DeGraw Avenue, Brooklyn, N. Y.
- Lebensart, Manning  
264 West 25 Street, New York, N. Y.
- Leibowitz, Max  
423 Tompkins Avenue, Brooklyn, N. Y.
- Levinsohn, Arthur  
26 So. Bridge Street, Poughkeepsie, N. Y.
- Levy, Gussie Florence  
512-36th Street, Town of Union, N. J.
- Lippe, Abraham Alfred  
916 Blake Avenue, Brooklyn, N. Y.
- Malinoff, Elias Alexander  
1640 Washington Avenue, New York, N. Y.
- Metlitz, Henry  
Nannet, N. Y.
- Michaels, Jacob  
1433 Bryant Avenue, New York, N. Y.
- Miller, Isidore Henry  
337 Ridge Avenue, Lakewood, N. J.
- Montemurro, Thomas  
531-42nd Street, Union City, N. J.
- Neuman, Harry  
215 Lawrence Place, Paterson, N. J.
- Palmera, Jerome John  
274 Third Street, Jersey City, N. J.
- Paulonis, Edward Peter  
1357 Bushwick Avenue, Brooklyn, N. Y.
- Porte, Solomon  
2054-63rd Street, Brooklyn, N. Y.
- Pucci, Guido  
1233 Third Avenue, No. Bergen, N. J.
- Rifkin, Isidor  
2026 Douglass Street, Brooklyn, N. Y.
- Rochelson, George  
1416 Stebbins Avenue, New York, N. Y.
- Rocker, Phillip  
120 East 2 Street, New York, N. Y.
- Rossi, Filomena Florence  
30 MacDougal Street, New York, N. Y.
- Saldinger, Karl  
554 DeKalb Avenue, Brooklyn, N. Y.
- Schimel, Moses  
3045 Ocean Parkway, Brooklyn, N. Y.
- Schlagel, Charles Jacob  
18 Oak Street, Beacon, N. Y.
- Schmilowitz, Samuel  
170-23 171st Street, Jamaica, L. I.
- Schmurok, Leon  
19 Sterling Place, Edgewater, N. J.
- Schopmann, William Henry  
103 Grace Street, Jersey City, N. J.
- Schultz, Joseph  
990 Aldus Street, New York, N. Y.
- Schutzbank, Victor  
R. F. D. No. 3 Lakewood, N. J.
- Schwartz, Max  
1629 Lexington Avenue, New York, N. Y.
- Scowcroft, Ronald  
582 Craig Avenue, Tottenville, N. Y.
- Seng, John Warren  
107 Carroll Place, New Brunswick, N. J.
- Shapiro, Harry  
176 Riverdale Avenue, Brooklyn, N. Y.
- Siegel, Isidore  
203 East 96th Street, New York, N. Y.
- Simon, Harry  
28 Gouverneur Street, New York, N. Y.
- Simon, Isidore Merenholz  
366 Hamilton Avenue, Paterson, N. J.
- Simone, Catharine Bellina  
Croton-on-Hudson, N. Y.
- Sobel, Joseph  
194 East Main Street, Bridgeport, Conn.
- Spielman, Samuel  
981 Simpson Street, New York, N. Y.
- Stauber, Robert August  
R. F. D. No. 15 Groton, N. Y.
- Steinberg, Abraham  
620 Riverdale Avenue, Brooklyn, N. Y.

- Sternberg, Morris  
904 East 95 Street, Brooklyn, N. Y.
- Stock, George Thomas  
Pawling, N. Y.
- Thierer, Lionel Louis  
1189 Sheridan Avenue, New York, N. Y.
- Tiesler, Adolph Edward  
93 Rebecca Avenue, Pleasantville, N. Y.
- Tisch, Leo  
1411 Madison Avenue, New York, N. Y.
- Topilow, Jacob  
155 West 29th Street, Bayonne, N. J.
- Tuchband, Louis  
Arlington Avenue, Bergenfield, N. J.
- Warren, Cameron Clyde  
30 Walkill Avenue, Middletown, N. Y.
- Weisman, Isadore  
37 Kingsbury Street, Waterbury, Conn.
- Weiss, Harry  
1447 Longfellow Avenue, New York, N. Y.
- Zabner, Jacob  
954 Hoe Avenue, New York, N. Y.
- (97)
- FRESHMAN UNIVERSITY CLASS
- Aaronson, Irving  
100 Humboldt Street, Brooklyn, N. Y.
- Alderman, George Joseph  
214 New Main Street, Yonkers, N. Y.
- Anderson, Arthur Gustave  
4 Travers Avenue, Mamaronock, N. Y.
- Appelbaum, Joseph  
147 Schenectady Avenue, Brooklyn, N. Y.
- Bauso, Felix  
2400 Myrtle Avenue, Brooklyn, N. Y.
- Beck, Louis  
Cresskill, N. J.
- Berry, Isadore  
76 Morgan Street, Springfield, Mass.
- Berson, Jack Jerome  
333 Pershing Avenue, Carteret, N. J.
- Biberfeld, Abraham Louis  
150-17th Street, West New York, N. J.
- Britton, John T.  
479 Broadway, Long Branch, N. J.
- Brown, Gustave Harold  
884 Riverside Drive, New York, N. Y.
- Bulda, Frank  
332 East 70th Street, New York, N. Y.
- Caniparoli, Olga  
2529 Cambreleng Avenue, New York, N. Y.
- Caprio, Ralph  
140 Parker Street, Newark, N. J.
- Carbonaro, John  
2 McMaster Street, Auburn, N. Y.
- Carnot, Edward Joseph  
850 Madison Avenue, New York, N. Y.
- Cherr, George  
1703 Washington Avenue, New York, N. Y.
- Cohen, Jacob  
291 E. Fourth Street, New York, N. Y.
- Coleman, John William  
227 Duncan Avenue, Jersey City, N. J.
- Costarella, Renato  
325 Bleecker Street, New York, N. Y.
- Crisuolo, Andrew  
180 Chestnut Street, New Haven, Conn.
- D'Avella, Bernadino Johnson  
167 Parker Street, Newark, N. J.
- Davenport, Renald  
Sweet Valley, Pa.
- Dayharsh, Carroll Wells  
105 Kensington Place, Syracuse, N. Y.
- DelVecchio, Henry William  
1366-73rd Street, Brooklyn, N. Y.
- Desotnek, William  
6 Pleasant Street, Newport, R. I.
- Donnelly, Frank Henry  
119 North Fulton Avenue, Mt. Vernon, N. Y.
- Edelman, Reuben Louis  
26 Cormack Court, Babylon, N. Y.
- Edelstein, Victor Hugo  
62 East 94th Street, New York, N. Y.
- Edgars, Norman Kenneth  
81 Hillside Avenue, Tenafly, N. J.
- Ellena, Aldo Joseph  
180 So. Bergenline Avenue, Union City, N. J.
- Erdtrachter, Jules  
229 Fifth Street, New York, N. Y.
- Fabrikant, Lawrence  
1986 Clinton Avenue, Brooklyn, N. Y.
- Falk, Herbert Bernard  
709 East 24th Street, Paterson, N. J.
- Fishbein, Isadore  
70 Carroll Street, Paterson, N. J.
- Fisher, Jennie  
314 Bay 10 Street, Brooklyn, N. Y.
- Fisher, Sidney Alexander  
124 West 115 Street, New York, N. Y.
- Foley, Frank Aloysius  
61 Prescott Avenue, Grant City, S. I.
- Freedman, Ray Morris  
7 West Glen Street, Glen Cove, N. Y.
- Fries, Harry  
1049 East 13 Street, Brooklyn, N. Y.
- Ganeless, Percy  
99 No. Main Street, Liberty, N. Y.
- Garbaden, George Howard  
111 Linden Avenue, Middletown, N. Y.
- Gerbino, Nicholas Joseph  
151 First Avenue, New York, N. Y.
- Gerken, Frederick  
133-08 Rockaway Blvd., So. Ozone Pk., B. I.
- Glanz, Milton  
355 Second Avenue, New York, N. Y.
- Glickfield, Peter Joel  
14 Cecil Avenue, Glen Cove, N. Y.
- Golub, Morris Eugene  
105 Wilbraham Road, E. Longmeadow, Mass.
- Gorenberg, David  
690 East 158th Street, New York, N. Y.

- Grasser, George Joseph  
22 Florida Avenue, Arrochar, S. I.
- Greenfield, Joseph  
222 East 124 Street, New York, N. Y.
- Groves, Reginald Doyle  
475 Spooner Avenue, Plainfield, N. J.
- Guagliardo, Vincent Francis  
28 Harrison Avenue, Monson, Mass.
- Gulker, Jacob Henry  
174 Clinton Street, New York, N. Y.
- Guss, Isidore Edward  
1425 Eastern Parkway, Brooklyn, N. Y.
- Hackman, Clifford W.  
212 Brinley Avenue, Bradley Beach, N. J.
- Hands, Quentin Roosevelt  
2533 Seventh Avenue, New York, N. Y.
- Harrison, Benjamin  
197 Floyd Street, Brooklyn, N. Y.
- Horewitz, Alexander  
214 Elm Street, Butler, Pa.
- Hoyte, Lewis Prescod  
169 St. Nicholas Avenue, New York, N. Y.  
c/o Haynes
- Hubbard, Earl Edmund  
42 Second Avenue, Bay Shore, N. Y.
- Ingegno, Henry Peter  
521 Atlantic Avenue, Brooklyn, N. Y.
- Iozzia, Theresa  
126 Beech Street, Paterson, N. J.
- Ironson, Hyman  
1183 Grand Concourse, New York, N. Y.
- Isgar, William  
95 Barrett Street, Brooklyn, N. Y.
- James, Edith Genevieve  
588 Lenox Avenue, New York, N. Y.
- Johnson, James Benjamin  
170 Orange Street, Kingston, Jamaica,  
B. W. I.
- Kadish, Frank Bernard  
21 So. Dean Street, Englewood, N. J.
- Kaplan, Aaron  
93 Granite Street, Brooklyn, N. Y.
- Kaplan, Herbert Benjamin  
185 Bergen Avenue, Jersey City, N. J.
- Kerner, Emanuel Matthew  
1968-68th Street, Brooklyn, N. Y.
- Kolk, Martin I.  
1805-49th Street, Brooklyn, N. Y.
- Landry, August  
1409 Edwards Avenue, New York, N. Y.
- LaPlaca, Francis A.  
316 Monroe Street, Hoboken, N. J.
- Lauria, Anthony  
784 West Side Avenue, Jersey City, N. J.
- Lawlor, Charles Lloyd  
45 Chrome Avenue, Carteret, N. J.
- Lawrence, James Elliot  
605 No. Boyd Street, Florence, S. C.
- Levy, Alexander  
556 Ashford Street, Brooklyn, N. Y.
- Levy, Julian S.  
436 Eastern Parkway, Brooklyn, N. Y.
- Lipkowitz, Irving Myron  
143 Van Buren Street, Brooklyn, N. Y.
- Lombardi, Julius Dominick  
150 South 9th Avenue, Mt. Vernon, N. Y.
- LoRusso, Joseph Franklyn  
1883 West 13th Street, Brooklyn, N. Y.
- Lubin, Abraham Allan  
327 Franklin Avenue, Scranton, Pa.
- Malament, Louis  
316 So. Fourth Street, Brooklyn, N. Y.
- Malkin, Max 75 Linden Street, Passaic, N. J.
- Mallon, Milton J.  
372 Snediker Avenue, Brooklyn, N. Y.
- Mannberger, Charles Richard  
139 Fourth Avenue, Pelham, N. Y.
- Marano, Anthony Mario  
1368-69th Street, Brooklyn, N. Y.
- Margolies, Raymond Nathan  
119 Lackawanna Avenue, Olyphant, Pa.
- Matuch, William Paul  
123 Park Avenue, Hoboken, N. J.
- Megibow, Louis  
543-13th Street, W. New York, N. J.
- Miceli, Anthony Victor  
273 Ninth Avenue, New York, N. Y.
- Mirkin, Samuel  
101 So. Third Street, Brooklyn, N. Y.
- Molbegat, Abner Irving  
746 East 2nd Street, Brooklyn, N. Y.
- Montesano, Benjamin  
9 Green Street, Paterson, N. J.
- Novak, Leon  
1081 East 12th Street, Brooklyn, N. Y.
- Oaklander, Isidore  
1239 Simpson Street, New York, N. Y.
- Paisley, James Franklin  
112 Hawxhaurst Avenue, Weehawken, N. J.
- Patrizio, Silvio  
108-21 Union Hall Street, Jamaica, N. Y.
- Pekarsky, Benjamin  
1965 Bryant Avenue, New York, N. Y.
- Pitchinick, Bernard  
1737 Pitkin Avenue, Brooklyn, N. Y.
- Race, Clarence Karst  
45 Third Avenue, Bay Shore, L. I.
- Reale, Victor Anthony  
1569-78th Street, Brooklyn, N. Y.
- Reichman, Frances  
648 Faile Street, New York, N. Y.
- Robinson, Abraham  
201 Pulaski Street, Brooklyn, N. Y.
- Rosenberg, Abraham  
4 Hinman Street, Middle Village, N. Y.
- Rosenberg, Isidor  
197 Tenth Street, Long Island City, N. Y.



- Rubenstein, Louis J.  
64 Hinsdale Street, Brooklyn, N. Y.
- Savarese, August  
588 Hamilton Avenue, No. Bergen, N. J.
- Schleider, Meyer K.  
37 West 48 Street, Bayonne, N. J.
- Schmid, Frederick William  
Hillsdale Avenue, Hillsdale, N. J.
- Schubert, Georgianna Agnes  
444 North Avenue, Dunellen, N. J.
- Schuchman, David  
210 Foster Avenue, New York, N. Y.
- Seitzman, Max  
193 Howe Avenue, Passaic, N. J.
- Skasko, Stephen  
01 Fairfield Avenue, Danbury, Conn.
- Soracco, Frank  
15 South Main Street, Liberty, N. Y.
- Sorensen, Harry C.  
517 East 26 Street, Brooklyn, N. Y.
- Spallucci, Michael  
516 Wheatland Avenue, Bound Brook, N. J.
- Sparacio, Carmel John  
30 Harrison Avenue, Monson, Mass.
- Spitz, Morris Solomon  
196 West Broadway, Paterson, N. J.
- Sporn, Arthur  
431 East 83 Street, New York, N. Y.
- Steiner, David  
336 East 87 Street, New York, N. Y.
- Stopen, Theodore  
406 East 70 Street, New York, N. Y.
- Sugarman, Benjamin  
1 Grauert Place, Weehawken, N. J.
- Taylor, Esser Ormsby  
431 South 7 Avenue, Mt. Vernon, N. Y.
- Teicher, Milton  
527 West 135 Street, New York, N. Y.
- Teichholz, Bernard  
309 Madison Street, Passaic, N. J.
- Tinkleman, Nathan  
6 Young Street, Poughkeepsie, N. Y.
- Valenti, Joseph  
714 Communipaw Avenue, Jersey City, N. J.
- Wagman, Meyer  
1203 Westchester Avenue, New York, N. Y.
- Wagner, Harry Frederick  
8967-214 Street, Queens Village, N. Y.
- Wallace, Winfield Scott, Jr.  
196 Highland Avenue, Middletown, N. Y.
- Waltz, Hugo Joseph  
264 Morris Street, Union City, N. J.
- Wang, Sidney  
91 Riverdale Avenue, Brooklyn, N. Y.
- Weber, Jacob  
1059 Glenmore Avenue, Brooklyn, N. Y.
- Whitaker, John Dickerson  
116 Cheran Street, Bennetsville, S. C.
- Wilentz, Alexander  
28 W. Palisade Avenue, Englewood, N. J.
- Wishner, Jacob  
275 So. Fifth Street, Brooklyn, N. Y.
- Yukelson, Arthur William  
1002 East 167th Street, New York, N. Y.
- Zunz, Edward  
542-28th Street, Union City, N. J.
- Zweig, Arthur  
86 West 103rd Street, New York, N. Y.  
(140)

## SECOND YEAR COLLEGE CLASS

- Ackerman, Leo  
915 East 15 Street, Brooklyn, N. Y.
- Adler, Max Abraham  
602 East 11 Street, New York, N. Y.
- Allen, Abraham  
860 East 161 Street, New York, N. Y.
- Alpert, Jacob Joseph  
987 Trinity Avenue, New York, N. Y.
- Amtman, Rudolph  
1450 Clay Avenue, New York, N. Y.
- Averbach, Abraham Irwin  
64 East 95 Street, Brooklyn, N. Y.
- Baer, Philip  
1597 Sterliug Place, Brooklyn, N. Y.
- Balotin, Joel  
Ellenville, N. Y.
- Becker, Abraham  
836 New Lots Avenue, Brooklyn, N. Y.
- Berinsky, Abraham  
985 E. Tremont Avenue, New York, N. Y.
- Berler, Abraham  
546 New Jersey Avenue, Brooklyn, N. Y.
- Berlin, Henry  
338 Broadway, Saratoga Springs, N. Y.
- Berman, Louis  
33 Avenue A, New York, N. Y.
- Bernstein, Philip  
766 Ninth Avenue, New York, N. Y.
- Bezahler, Charles  
814 East 167th Street, New York, N. Y.
- Bikofsky, Louis  
313 East 170 Street, New York, N. Y.
- Bindersky, Morris Louis  
1463 St. Mark's Avenue, Brooklyn, N. Y.
- Blank, Samuel  
234 East Third Street, New York, N. Y.
- Blatman, Leo  
3510-35th Street, Astoria, L. I.
- Blaunstein, Harry  
786 East 165 Street, New York, N. Y.
- Bloom, Morris  
96 Bay 17th Street, Brooklyn, N. Y.
- Bogart, Jacob  
233 East 110 Street, New York, N. Y.
- Bonaccolto, Ada  
322 Second Avenue, New York, N. Y.
- Bookchin, Benjamin  
23 Harvard Court, Brighton Beach, N. Y.

- Botfeld, Louis  
     32 Stanwix Street, Brooklyn, N. Y.  
 Bousel, Morris  
     3120 Hull Avenue, New York, N. Y.  
 Brook, Max  
     251 Michigan Avenue, Mobile, Ala.  
 Brotman, Sam  
     147 Stanton Street, New York, N. Y.  
 Cernik, Joseph John  
     311 East 73 Street, New York, N. Y.  
 Chalian, Alexander  
     1468 St. Nicholas Avenue, New York, N. Y.  
 Cohen, Michael  
     602 Pennsylvania Avenue, Brooklyn, N. Y.  
 Columbus, Leo  
     27 West 91 Street, New York, N. Y.  
 Cona, Josephine  
     182 So. Centre Street, Orange, N. J.  
 Cooper, Israel  
     3885 Bedford Avenue, Brooklyn, N. Y.  
 Cooper, Julius Sussman  
     72 Spring Street, Norwich, Conn.  
 Crystal, Adam  
     144 Ellery Street, Brooklyn, N. Y.  
 Daniel, Blueford Fowler  
     Hogansville, Ga.  
 DeCicco, Anthony Charles  
     260 President Street, Brooklyn, N. Y.  
 Deitz, Martin David  
     47 So. Main Street, Norwalk, Conn.  
 Diamond, Rudolph  
     2 East 108 Street, New York, N. Y.  
 Dickson, Martin  
     262 Seigel Street, Brooklyn, N. Y.  
 Dinitz, Charles  
     96 McKibbin Street, Brooklyn, N. Y.  
 Donenhirsh, Louis  
     74-76 Chrystie Street, New York, N. Y.  
 Dreizin, Gersh Kushelev Abramov  
     1698 Vyse Avenue, New York, N. Y. c/o  
     D'Arlon  
 Durst, Samuel Isidore  
     143 Stanton Street, New York, N. Y.  
 Edelman, Benjamin  
     1551 Walton Avenue, New York, N. Y.  
 Eichenbaum, Samuel  
     235 East 103 Street, New York, N. Y.  
 Elkind, Joseph Benjamin  
     15 Overlook Terrace, Yonkers, N. Y.  
 Etkins, Abraham  
     2161 Douglass Street, Brooklyn, N. Y.  
 Fiertel, Israel David  
     151 Suffolk Street, New York, N. Y.  
 Fishman, Fannie  
     519 Albany Avenue, Brooklyn, N. Y.  
 Frager, Joseph Saul  
     171 So. William Street, Newburgh, N. Y.  
 Frankel, Ezra  
     140 Stanton Street, New York, N. Y.  
 Friedman, Morris  
     50 East 100 Street, New York, N. Y.  
 Gellis, Mark Romeo  
     Claremont, N. H.  
 Gilbert, Charles  
     1571 West 11 Street, Brooklyn, N. Y.  
 Ginnis, Louis  
     1849-66th Street, Brooklyn, N. Y.  
 Glassman, Louis  
     101 Straight Street, Paterson, N. J.  
 Goldenberg, Harry  
     404 Georgia Avenue, Brooklyn, N. Y.  
 Goldfield, Max  
     270 Windsor Avenue, Hartford, Conn.  
 Goldman, Pincus  
     24 East 99 Street, Apt. 51, New York, N. Y.  
 Goldstein, Meyer  
     292 Hinsdale Street, Brooklyn, N. Y.  
 Goldwasser, Abraham  
     555 Bushwick Avenue, Brooklyn, N. Y.  
 Gordon, William  
     1366 Brook Avenue, New York, N. Y.  
 Gorga, Alfonso  
     281 Hudson Avenue, Brooklyn, N. Y.  
 Gottheil, David Isidore  
     1851 Bathgate Avenue, New York, N. Y.  
 Greenfarb, Hyman  
     1753 Sterling Place, Brooklyn, N. Y.  
 Grey, William  
     1548 East 4th Street, Brooklyn, N. Y.  
 Grogin, James Isidor  
     1031-54th Street, Brooklyn, N. Y.  
 Haase, Milton  
     2123 Tiebout Avenue, New York, N. Y.  
 Hacker, Louis  
     4219-15th Avenue, Brooklyn, N. Y.  
 Haiken, Benjamin  
     822 Beck Street, New York, N. Y.  
 Hammecker, Horton Martin  
     1500 W. Genesee Street, Syracuse, N. Y.  
 Heller, Aaron  
     1766 Bergen Street, Brooklyn, N. Y.  
 Hertzoff, Max  
     1503 Charlotte Street, c/o Chassman,  
     Palisades Park, N. J.  
 Hillinger, Morris William  
     2922 LaSalle Avenue, Los Angeles, Cal.  
 Honiberg, Aaron David  
     254 Windsor Avenue, Hartford, Conn.  
 Hurvitz, Mrs. Jennie  
     797 Crotona Park North, New York, N. Y.  
 Irvin, Vera  
     18 West 138 Street, New York, N. Y.  
 Isaacs, Melville  
     53 West 114 Street, New York, N. Y.  
 Isaacson, Harry  
     2141 Homecrest Avenue, Brooklyn, N. Y.  
 Israel, Max  
     120 East 110 Street, New York, N. Y.

- Jospey, Milton  
17 Beach 37 Street, Edgemere, N. Y.
- Kanfer, Daniel  
140<sup>1</sup>/<sub>2</sub> Wilson Street, Brooklyn, N. Y.
- Kaplan, Jonah  
691 Van Sicklen Avenue, Brooklyn, N. Y.
- Kaplan, Morris  
1420-43rd Street, Brooklyn, N. Y.
- Kaplan, Robert  
628 Vermont Street, Brooklyn, N. Y.
- Karp, Solomon  
363 Hinsdale Street, Brooklyn, N. Y.
- Karpf, Bernard  
1509 Charlotte Street, New York, N. Y.
- Katz, Emanuel  
280 Stanton Street, New York, N. Y.
- Katz, Pearl  
738-37th Street, Milwaukee, Wis.
- Kaufman, Charles  
569 Saratoga Avenue, Brooklyn, N. Y.
- Keegan, James John  
Liberty, N. Y.
- Kessler, Harry  
2435 Creston Avenue, New York, N. Y.
- Kessler, Selig Ezra  
14 East 120 Street, New York, N. Y.
- Kirschner, Charles Israel  
159 South 4th Street, Brooklyn, N. Y.
- Klein, Isidore  
433 East 138 Street, New York, N. Y.
- Klein, Joseph  
720 East 9 Street, New York, N. Y.
- Kolber, Samuel W.  
252 Driggs Avenue, Brooklyn, N. Y.
- Koslowsky, Louis Oscar  
1967-71st Street, Brooklyn, N. Y.
- Kramer, Paul  
1326 Washington Avenue, New York, N. Y.
- Kreisel, Jacob  
910 DeKalb Avenue, Brooklyn, N. Y.
- Kritman, Azril  
334 East 9th Street, New York, N. Y.
- Krouse, Sidney Morris  
1011 Simpson Street, New York, N. Y.
- Krulis, Albert Joseph  
32-14-79th Street, Jackson Heights, L. I.
- LaRocca, Michael  
65<sup>1</sup>/<sub>2</sub> Skillman Avenue, Brooklyn, N. Y.
- Leibson, Samuel  
366 Pennsylvania Avenue, Brooklyn, N. Y.
- Leikin, Samuel  
73 Conselyea Street, Brooklyn, N. Y.
- Lemberg, Benjamin  
159 East 52 Street, New York, N. Y.
- Lercher, Juda  
272 East 7th Street, New York, N. Y.
- Leschinsky, Morris  
13 Pitt Street, New York, N. Y.
- Levine, Benjamin  
364 West 36th Street, New York, N. Y.
- Levinsky, Charles  
995 Simpson Street, New York, N. Y.
- Levy, Artrelle  
2329 Seventh Avenue, New York, N. Y.
- Lewis, Edgar  
2057-78th Street, Brooklyn, N. Y.
- Lewitus, Victor  
3459 DeKalb Avenue, New York, N. Y.
- Lippmann, Max  
2910 Valentine Avenue, New York, N. Y.
- Liss, Julius  
139 Eldridge Street, New York, N. Y.
- Lovich, Boris  
1121 Morris Avenue, New York, N. Y. c/o  
Rubin
- Lovish, Sidney  
227 Hart Street, Brooklyn, N. Y.
- Lurie, Abraham  
1950 Bryant Avenue, New York, N. Y.
- MacNear, Raymond  
22 Fullerton Avenue, Newburgh, N. Y.
- Maddock, Catherine Margaret  
College of Mt. St. Vincent, Mt. St. Vincent,  
New York
- Malinak, Charles Henry  
109 Ludlow Street, New York, N. Y.
- Mandell, Henry  
191 Moore Street, Barberton, Ohio
- Marcus, Louis  
169 East 102 Street, New York, N. Y.
- Markowitz, Max  
222 East 124 Street, New York, N. Y.
- Mehr, Joseph  
77 Davidson Avenue, Brooklyn, N. Y.
- Memmolli, Riccardo Eugenio  
211 Avenue A, New York, N. Y.
- Milea, Francis D.  
196 President Street, Brooklyn, N. Y.
- Miller, Henry  
Main Street, Fleischmanns, N. Y.
- Miller, Joseph  
105 East 109 Street, New York, N. Y.
- Miller, Kenneth Scott  
23 Dale Avenue, Ossining, N. Y.
- Mintzer, Marcus  
223 East 4 Street, New York, N. Y.
- Miraglia, Albert  
661 Palisade Avenue, Grantwood, N. J.
- Nadelshaft, Isaac  
827 Kelly Street, New York, N. Y.
- Nadler, Charles Jack  
108 Gerry Street, Brooklyn, N. Y.
- Nash, Henry Bergen  
34 Fairview Avenue, Walden, N. Y.
- Nielsen, Laurence R.  
235a Monitor Street, Brooklyn, N. Y.
- Okrent, Frank  
3019 Ocean Spray Avenue, Brighton Beach,  
N. Y.

- Okst, George Kings Park, N. Y.
- O'Neill, Bernard 673 Summit Avenue, Jersey City, N. J.
- 344 Dennison Parkway, Corning, N. Y.
- Palange, Edward Arthur Scherer, Ralph
- 193 Bleecker Street, New York, N. Y. 73 Avenue C, New York, N. Y.
- Panetta, Viola Diana Schmelzer, Henry
- 1840 W. 8 Street, Brooklyn, N. Y. 3803 Laurel Avenue, Seagate, N. Y.
- Penner, Samuel Schwartz, Julius
- 1769 Prospect Place, Brooklyn, N. Y. 105 West 114 Street, New York, N. Y.
- Plotkin, Louis Schwarz, Charles
- 781-44th Street, Brooklyn, N. Y. 366 Montgomery Street, Brooklyn, N. Y.
- Pohl, Morris Setaro, Rose Ann
- 1118 Avenue K, c/o Dr. Pohl, Brooklyn, N. Y. 2839-4th Avenue, Astoria, L. I.
- Pollack, Sam Shapiro, Irving Harold
- 310 East 4 Street, New York, N. Y. 179 Wood Avenue, Bridgeport, Conn.
- Reife, Leo M. Sherman, Louis Joseph
- 1023 Hopkinson Avenue, Brooklyn, N. Y. 78 Barrett Street, Brooklyn, N. Y.
- Reisman, Saul Shiffman, Samuel
- 1341 Southern Boulevard, New York, N. Y. 39 Essex Street, New York, N. Y.
- Rievman, Homer Siegel, Samuel
- 2259-63rd Street, Brooklyn, N. Y. 307a Berriman Street, Brooklyn, N. Y.
- Rinzler, Philip Silverstein, Morris
- 1243-55th Street, Brooklyn, N. Y. 77 Keap Street, Brooklyn, N. Y.
- Robinson, Milton Simeone, Nicholas Ferdinand
- 981 East 14th Street, Brooklyn, N. Y. 640 Main Street, No. Bergen, N. J.
- Rosat, Albert Benedict Sirota, Benjamin
- 9125-96th Street, Woodhaven, L. I. 1419 Pitkin Avenue, Brooklyn, N. Y.
- Rose, Kenneth William Sitar, Joseph John
- 39 South 12 Street, Mt. Vernon, N. Y. 132 Spring Street, Union City, Conn.
- Rosenberg, Benjamin Smith, George
- 858 Beck Street, New York, N. Y. 1448-79th Street, Brooklyn, N. Y.
- Rosenblatt, Morris Smith, Lilliam Russell
- 1354 Brook Avenue, New York, N. Y. 26 Lafayette Street, Brooklyn, N. Y.
- Rosenblum, Max Soren, Charles Harry
- 1976 Second Avenue, New York, N. Y. 932 Hoe Avenue, New York, N. Y.
- Rosenfeld, Marcus Spage, Robert
- 652 Willoughby Avenue, Brooklyn, N. Y. 55-47th Street, Corona, N. Y.
- Rosenstock, Pearl Spiegelglass, Samuel
- 48 Canal Street, Ellenville, N. Y. 1099 Union Avenue, New York, N. Y.
- Rosenthal, Irving Steigner, George William
- 299 South 5 Street, Brooklyn, N. Y. 438 Graham Avenue, Paterson, N. J.
- Rothman, Israel Stern, William
- 465 Cleveland Street, Brooklyn, N. Y. 159 East 94 Street, Brooklyn, N. Y.
- Rubens, Nathan Stout, William Calvin
- 105 Water Street, Stapleton, S. I. 71 Cambridge Street, Valley Stream, L. I.
- Rubenstein, Sidney Tanenbaum, Hyman A.
- 505 Essex Street, Brooklyn, N. Y. 52 Barrett Street, Brooklyn, N. Y.
- Rubin, Fannie Tartakowsky, Louis
- 2140 Clinton Avenue, New York, N. Y. 1152 Simpson Street, New York, N. Y.
- Rubin, Israel Tekowsky, Abraham
- 324 Georgia Avenue, Brooklyn, N. Y. 1725-51st Street, Brooklyn, N. Y.
- Safier, Herman Trotsky, Meyer
- 1904 Mermaid Avenue, Brooklyn, N. Y. 224 East 11th Street, New York, N. Y.
- Samlowitz, Max Troub, Kopel
- 89 Glenmore Avenue, Brooklyn, N. Y. 258 Herzl Street, Brooklyn, N. Y.
- Sanders, Herbert Tucker, Louis
- 7426 Seventh Avenue, Brooklyn, N. Y. 1295 Sheridan Avenue, New York, N. Y.
- Tucker, Max
- 416 East 52 Street, New York, N. Y.
- Tuman, Robert
- 5323 Church Avenue, Brooklyn, N. Y.

- Turk, Jacob Bernard  
308 New Lots Avenue, Brooklyn, N. Y.
- Weinstein, Julius  
2313 Mermaid Avenue, Brooklyn, N. Y.
- Weintraub, Sol  
1299 St. John Place, Brooklyn, N. Y.
- Westerman, Abraham  
416 East 120 Street, New York, N. Y.
- Wiener, Edward Martin  
1120-56th Street, Brooklyn, N. Y.
- Wiener, Meyer  
1280B Sheridan Avenue, New York, N. Y.
- Wisikin, Morris  
522 East 13 Street, New York, N. Y.
- Wolfowitz, Isidore  
189 Hart Street, Brooklyn, N. Y.
- Woodley, Edna Catherine  
College of Mt. St. Vincent, Mt. St. Vincent,  
New York
- Yablonski, Stanley Arthur  
174 Clinton Avenue, Maspeth, N. Y.
- Yakoubian, Leon  
5424-18th Avenue, Brooklyn, N. Y.
- Zablocki, Henry  
93 South 10 Street, Brooklyn, N. Y.
- Zahn, Joseph Bernard  
1466 Brook Avenue, New York, N. Y.
- Zaugg, Stanley Britain  
2502 Chamberlain Avenue, Chattanooga,  
Tenn.  
(213)
- FIRST YEAR COLLEGE CLASS
- Abramoff, Adolph  
221 East 66 Street, New York, N. Y.
- Adler, Solomon  
739 East 6 Street, New York, N. Y.
- Amazon, Maxwell  
320-340 Sea Breeze Avenue, Brooklyn, N. Y.
- Amster, Herman Charles  
693 Monroe Street, Brooklyn, N. Y.
- Appelbaum, Gershon  
25 West 112 Street, c/o Schneider, New York,  
N. Y.
- Aronowitz, Louis  
49 West 34 Street, New York, N. Y.
- Avirom, Morris  
358 Hart Street, Brooklyn, N. Y.
- Ax, Irving  
276 Avenue A, New York, N. Y.
- Baizer, Louis  
199 E. Houston Street, New York, N. Y.
- Balaban, Chaiah E.  
333 Sheffield Avenue, Brooklyn, N. Y.
- Barile, Emerico Alfred  
235 West 67 Street, New York, N. Y.
- Barnes, Robert Leo  
328 Leah Street, Utica, N. Y.
- Becker, Harry  
1056 Hoe Avenue, New York, N. Y.
- Becker, Joseph George  
25-35 Blake Avenue, Brooklyn, N. Y.
- Beeber, Joseph  
134 Clymer Street, Brooklyn, N. Y.
- Bennett, Benjamin Herman  
233 So. Second Street, Brooklyn, N. Y.
- Bergman, Israel  
115 St. Marks Place, New York, N. Y.
- Berkowitz, Bernard  
1472 Wilkins Avenue, New York, N. Y.
- Berkowitz, Simon  
92 Rivington Street, New York, N. Y.
- Berman, Louis Leo  
43 Forsyth Street, New York, N. Y.
- Bernstein, Charles Leo  
216 East 6 Street, New York, N. Y.
- Bernstein, Jesse L.  
1710 Hoe Avenue, New York, N. Y.
- Bernstein, Milton  
39 West 113 Street, New York, N. Y.
- Bershatsky, Joseph  
651 Marcy Avenue, Brooklyn, N. Y.
- Billar, Moses Leon  
115 Columbia Street, New York, N. Y.
- Bolker, Abraham  
1926 Pacific Street, Brooklyn, N. Y.
- Botti, Nicholas Albert  
509 Greenwood Avenue, Brooklyn, N. Y.
- Boxer, Hyman  
1709 Bathgate Avenue, New York, N. Y.
- Boxer, Michael  
800 Fox Street, New York, N. Y.
- Brensilver, David I.  
637 Tinton Avenue, New York, N. Y.
- Bronstein, Harry  
180 Varet Street, Brooklyn, N. Y.
- Bronstein, Leo  
201 Varet Street, Brooklyn, N. Y.
- Brown, Howard Wendell  
401 Main Street, New Rochelle, N. Y.
- Butensky, Samuel  
1814 Park Place, Brooklyn, N. Y.
- Chaifetz, Morris  
49 Rutgers Street, New York, N. Y.
- Chait, Reuben  
352 West 117 Street, New York, N. Y.
- Charney, Abraham  
1255 Blake Avenue, Brooklyn, N. Y.
- Chasman, Solomon  
132-17th Street, Brooklyn, N. Y.
- Chasnowitz, Irving  
890 Fox Street, New York, N. Y.
- Chasnowitz, Martin  
890 Fox Street, New York, N. Y.
- Cheresh, Edward Julius  
374 So. Second Street, Brooklyn, N. Y.
- Cipriano, Robert M.  
512 Greene Avenue, Brooklyn, N. Y.

- Cody, Mary Rose  
94 Main Street, New Canaan, Conn.
- Cohen, Abraham  
230 Woolsey Avenue, Astoria, L. I.
- Cohen, Abraham  
344 Georgia Avenue, Brooklyn, N. Y.
- Cohen, Milton  
2518 Clarendon Road, Brooklyn, N. Y.
- Cohen Philip  
1532 Longfellow Avenue, New York, N. Y.
- Cohen, Sam  
69 Hinsdale Street, Brooklyn, N. Y.
- Cohen, Sigmund  
1807-63rd Street, Brooklyn, N. Y.
- Cohen, Solomon  
43 Eldridge Street, New York, N. Y.
- D'Addario, Tullio Artelio  
231 East 13 Street, New York, N. Y.
- David, Solomon  
117 South 4th Street, Brooklyn, N. Y.
- DeFilippis, Americo Joseph  
2-B King Street, New York, N. Y.
- deLalla, Carmelita Anne  
704 Bleecker Street, Utica, N. Y.
- Denhoffer, Benjamin  
922 Myrtle Avenue, Brooklyn, N. Y.
- Denker, Benjamin  
496 East 174 Street, New York, N. Y.
- Deutsch, Max  
41 Convent Avenue, New York, N. Y.
- DiBella, Joseph Vincent  
690 Hudson Avenue, West New York, N. J.
- Dubinsky, Jack  
1566 St. Marks Avenue, Brooklyn, N. Y.
- Dubnick, Samuel  
1838 Park Place, Brooklyn, N. Y.
- Dumont-Belzil, Marie Celina  
531 East 86 Street, New York, N. Y.
- Dworsky, Nathan  
62 West 124 Street, New York, N. Y.
- Eisenberg, Max  
1284 Amsterdam Avenue, Apt. 12, New York, N. Y.
- Eisler, Abraham Harry  
226 Hart Street, Brooklyn, N. Y.
- Elkowitz, Paul  
368 East 4 Street, New York, N. Y.
- Epstein, Harry  
484 Claremont Parkway, New York, N. Y.
- Errante, Frank Joseph  
389 Shepherd Avenue, Brooklyn, N. Y.
- Fass, Morris  
1518 Walton Avenue, New York, N. Y.
- Feuerstein, Abraham  
481 Warwick Street, Brooklyn, N. Y.
- Finkelstein, Morris  
1047 Avenue St. John, New York, N. Y.
- Florence, Paul Adrien  
213 Pomander Road, Mineola, L. I.
- Fox, Jerry Abe  
879 Elsmere Place, New York, N. Y.
- Franzblau, Max  
2028 Gleason Avenue, New York, N. Y.
- Fried, Morris David  
164 Havemeyer Street, Brooklyn, N. Y.
- Friedman, Harry  
1214 Avenue K, Brooklyn, N. Y.
- Friedman, Jacob  
89 Aldine Street, Newark, N. J.
- Friedman, Leonard  
840 West End Avenue, New York, N. Y.
- Friedman, Nathan Fisher  
615 West 162 Street, New York, N. Y.
- Fuchs, Louis  
343 East 16 Street, New York, N. Y.
- Garfinkle, Arthur  
48 East 15 Street, Bayonne, N. J.
- Gargiulo, Dominick Francis  
1869 West 10 Street, Brooklyn, N. Y.
- Gilbert, Jacob Carlman  
459 West 46 Street, New York, N. Y.
- Gilliar, Frank James  
53 Grace Avenue, Great Neck, N. Y.
- Gimbel, William Breitbart  
565 Cleveland Street, Brooklyn, N. Y.
- Gioia, Michael Angelo  
1115 Avenue Z, Brooklyn, N. Y.
- Glance, Abraham Louis  
853 East 170 Street, New York, N. Y.
- Glazer, Louis Alfred  
1275 Grant Avenue, New York, N. Y.
- Glick, Meyer  
215 East 4 Street, New York, N. Y.
- Goldberg, Nathan  
529 Hinsdale Street, Brooklyn, N. Y.
- Goldrad, Harry  
1491 Brook Avenue, New York, N. Y.
- Goldstein, Samuel  
53 Liberty Avenue, New York, N. Y.
- Goozman, Max  
826 Second Avenue, New York, N. Y.
- Goran, Philip  
140 East 7 Street, New York, N. Y.
- Gorset, Abraham Frank  
175 Middleton Street, Brooklyn, N. Y.
- Govendy, Anna Belle  
835 So. Townsend Street, Syracuse, N. Y.
- Groopman, Harry  
548 Fox Street, New York, N. Y.
- Grossman, Max  
7 Bay 22 Street, c/o Malin, Brooklyn, N. Y.
- Gullo, Nancy  
148 Hester Street, New York, N. Y.
- Halfin, Herman  
3420 Laron Avenue, Cincinnati, Ohio
- Halpert, Isidore  
1762-62nd Street, Brooklyn, N. Y.

- Haven, Meyer Rubin  
117 South 4 Street, Brooklyn, N. Y.
- Heckman, Alexander  
1964 West 6 Street, Brooklyn, N. Y.
- Heller, Bella  
902 Hopkinson Avenue, Brooklyn, N. Y.
- Hirschman, Hyman  
7 East 108 Street, New York, N. Y.
- Hochstadt, Samuel  
508 Williams Avenue, Brooklyn, N. Y.
- Isikowitz, Bernard Morris  
426 Snediker Avenue, Brooklyn, N. Y.
- Israel, Leon Harold  
319 Cherry Street, New York, N. Y.
- Itzkowitz, Harry  
1717-60th Street, Brooklyn, N. Y.
- Itzkowitz, Isidore  
602 Junius Street, Brooklyn, N. Y.
- Jablin, Michael Marven  
1620 St. Johns Place, Brooklyn, N. Y.
- Jacobowitz, Jacob  
336 East 55 Street, Brooklyn, N. Y.
- Janiger, Phoebe  
47 West 112 Street, New York, N. Y.
- Kannry, Irving  
64 East 103 Street, New York, N. Y.
- Kaplan, Julius  
1382 College Avenue, New York, N. Y.
- Katz, Aaron  
3802-12th Avenue, Brooklyn, N. Y.
- Katz, Abraham  
320 East 122 Street, New York, N. Y.
- Kerachsky, Isador Leonard Bridge, Conn.
- Keylin, Solomon  
1361 Intervale Avenue, New York, N. Y.
- Klinger, Bernard  
1304 Sterling Place, Brooklyn, N. Y.
- Klinger, Sol  
689 Beck Street, New York, N. Y.
- Komisaruk, William Boris  
367 East 179 Street, New York, N. Y.
- Krant, Harry  
850 Eastern Parkway, Brooklyn, N. Y.
- Krause, William  
238 Main Street, Port Jefferson, N. Y.
- Kunitz, Edward A.  
1280 Walton Avenue, New York, N. Y.
- Lacovara, Vincent  
210 East 7 Street, Brooklyn, N. Y.
- Lager, Samuel  
1440 Crotona Park East, New York, N. Y.
- Langberg, Isidore  
357 South 5 Street, Brooklyn, N. Y.
- Laster, Samuel  
221 East 82 Street, New York, N. Y.
- Lazarowitz, Abraham  
557 Simpson Place, New York, N. Y.
- Lefrak, David  
1522 Webster Avenue, New York, N. Y.
- Leitner, Yetta  
1054 Eastern Parkway, Brooklyn, N. Y.
- Lenkowsky, Solomon David  
286 Grafton Street, Brooklyn, N. Y.
- Lennon, Mary Augusta Pawling, N. Y.
- Lev, Max  
419 West 115 Street, New York, N. Y.
- Levine, Esro  
1051 Kelly Street, New York, N. Y.
- Levine, Jesse Woodridge, N. Y.
- Levinson, Meyer  
584 East 137 Street, New York, N. Y.
- Lewis, David Kenneth  
290 West End Avenue, New York, N. Y.
- Lindeman, Henry O.  
109-36-132nd Street, Richmond Hill, N. Y.
- Longano, Carmine  
554 Lorimer Street, Brooklyn, N. Y.
- Lortz, Edgar Martin  
279 W. Main Street, Ilion, N. Y.
- Lucas, Carl  
238 Ft. Washington Avenue, New York, N. Y.
- Luntz, Stanley  
725-45th Street, Brooklyn, N. Y.
- Lyons, Roland Frederick Lake Placid, N. Y.
- McArdle, James W.  
187 Robinson Avenue, Newburgh, N. Y.
- McEwen, Harry Wayne  
262 Broadway, Fort Edward, N. Y.
- McGraw, Harvey B.  
34 Tompkins Street, Cortland, N. Y.
- McKaba, Arthur Essad  
134 State Street, Brooklyn, N. Y.
- Maffia, Joseph J.  
212 East 61 Street, New York, N. Y.
- Manson, Abraham  
63 Columbia Street, New York, N. Y.
- Margotta, Anna Letitia  
169 Union Avenue, New Rochelle, N. Y.
- Marotta, Raphael Anthony  
3 Edson Place, Corona, N. Y.
- Martin, George Thomas Lake Placid, N. Y.
- Martocci, Amedeo  
442 East 16 Street, New York, N. Y.
- Mersel, Joseph  
77 Perry Street, New York, N. Y.
- Miceli, Anthony William  
784 Bushwick Avenue, Brooklyn, N. Y.
- Miller, Benjamin  
1347-40th Street, Brooklyn, N. Y.
- Miller, Joseph  
98 Louisa Street, Brooklyn, N. Y.
- Miller, Mina  
1823 Mohegan Avenue, New York, N. Y.
- Miller, Samuel  
467 Kosciusko Street, Brooklyn, N. Y.
- Morton, Timothy Harris  
Hotel Governor Clinton, Kingston, N. Y.

- Mucelli, Gaetano  
162 Atkins Avenue, Brooklyn, N. Y.
- Mulhall, John Anthony  
16 Liberty Street, W. H. Newburgh, N. Y.
- Musso, Frank 522-9th Street, Brooklyn, N. Y.
- Norman, Elmer Martin  
30-60 Sixth Avenue, Astoria, L. I.
- Novosolsky, Henry  
523 West 138 Street, New York, N. Y.
- Okrent, John  
3019 Ocean Spray Avenue, Brooklyn, N. Y.
- Olenick, Jacob  
1046 Rutland Road, Brooklyn, N. Y.
- Ornstrat, Leon  
980 Fox Street, c/o Keller, New York, N. Y.
- Orso, Anthony  
R. F. D. No. 2 Hempstead, N. Y.
- Oxman, William  
365 Dumont Avenue, Brooklyn, N. Y.
- Padow, Meyer  
1024 East 14 Street, Brooklyn, N. Y.
- Pagano, Dominick  
128 E. Broadway, New York, N. Y.
- Palen, Richard Gilbert  
44 Pauling Avenue, Cold Springs, N. Y.
- Palen, Robert O'Neill Monroe, N. Y.
- Picheny, Bernard  
213 Clinton Street, New York, N. Y.
- Pollack, Jacob Phillip  
52 Reid Avenue, Brooklyn, N. Y.
- Pollack, Lawrence  
1556 Hoe Avenue, c/o Salop, New York, N. Y.
- Polizzi, Fred Edmund  
1246-40th Street, Brooklyn, N. Y.
- Pomerantz, Nathan Joseph  
1637-44th Street, Brooklyn, N. Y.
- Ponticello, Francis Anthony  
52 Council Street, Rochester, N. Y.
- Puleo, Nicholas D.  
415 East 12 Street, New York, N. Y.
- Pumo, Anthony  
224 Suydam Street, Brooklyn, N. Y.
- Rabinowitz, Morris  
1284 Amsterdam Avenue, New York, N. Y.
- Rabinowitz, Samuel  
445 Rockaway Parkway, Brooklyn, N. Y.
- Rader, Dora Lillie  
957 Fox Street, New York, N. Y.
- Raia, Emanuel Joseph  
1396 Herkimer Street, Brooklyn, N. Y.
- Ramo, Louis  
34 Marks Avenue, Rockville Centre, L. I.
- Reece, Harry William  
86 Valentine Street, Westbrook, Me.
- Reifman, Isaac  
922 Barretto Street, New York, N. Y.
- Reiss, William  
198 Decatur Street, Brooklyn, N. Y.
- Rich, Patsy  
21 Evergreen Avenue, Rye, N. Y.
- Richert, Edward V.  
Jericho Turnpike & Ingraham Lane, New Hyde Park, L. I.
- Rinaldi, Charles Dominick  
1362-64th Street, Brooklyn, N. Y.
- Rosen, Julius  
28 Warren Street, Ellenville, N. Y.
- Rosenberg, Harry Oscar  
123 Rockaway Parkway, Brooklyn, N. Y.
- Rosenthaler, Malvin  
202-16th Street, College Point, N. Y.
- Rossi, James  
370 Metropolitan Avenue, Brooklyn, N. Y.
- Rothenberg, David  
537 Powell Street, c/o Shapiro, New York, N. Y.
- Rothfeld, Emanuel  
35 East 110 Street, New York, N. Y.
- Sahr, Sydney  
3443-62nd Street, Woodside, N. Y.
- Salitan, Ralph  
518 West 111 Street, c/o Cozoshansky, New York, N. Y.
- Saltzman, David  
108 Moore Street, Brooklyn, N. Y.
- Samuels, George  
1526 Lincoln Place, Brooklyn, N. Y.
- Sanders, Bernard  
7426 Seventh Avenue, Brooklyn, N. Y.
- Santagada, Francis Paul  
81 City Terrace, Newburgh, N. Y.
- Sarawaisky, Isadore  
20 Bergen Place, Jamaica, N. Y.
- Schames, Louis  
507 Ashford Street, Brooklyn, N. Y.
- Schavsis, Alexander  
731 Union Avenue, New York, N. Y.
- Schechner, Louis  
1223-55th Street, Brooklyn, N. Y.
- Schein, Henry  
244 Roebling Street, Brooklyn, N. Y.
- Schlosberg, Nathan  
4 East 108 Street, New York, N. Y.
- Schneider, Milton Solomon  
1059 First Avenue, New York, N. Y.
- Schrage, Joseph  
1568 Macomba Road, New York, N. Y.
- Schuker, Litman Halbert  
362 Grand Street, Brooklyn, N. Y.
- Schultz, George  
306 East 73 Street, New York, N. Y.
- Schwartz, Joseph George  
250 East 30 Street, New York, N. Y.
- Schwartzberg, Louis  
5 Roeberge Place, Brooklyn, N. Y.
- Segal, Benjamin  
8705 Bay Parkway, Brooklyn, N. Y.



- Shaffet, Robert  
7620 Rockaway Blvd., Woodhaven, L. I.
- Shaftman, Charles Samuel  
64 West 108 Street, New York, N. Y.
- Shapiro, Daniel  
1518 East 172 Street, New York, N. Y.
- Shapiro, Morris  
231 East 99 Street, New York, N. Y.
- Sherman, Barney Bernard  
16 Van Wyck Avenue, Jamaica, N. Y.
- Shucard, Morris  
904 Stone Avenue, Brooklyn, N. Y.
- Sidelsky, Samuel  
237 East 93 Street, Brooklyn, N. Y.
- Siegel, Max  
228 South First Street, Brooklyn, N. Y.
- Siegel, Morris  
2017 Lafontaine Avenue, New York, N. Y.
- Silverman, Jacob Ronald  
629 Rast 5 Street, New York, N. Y.
- Singer, Nathan  
988 Simpson Street, c/o McAuliffe, New York, N. Y.
- Sirulnick, Raphael  
2010 Ocean Avenue, Brooklyn, N. Y.
- Slavin, Isadore  
141 Second Avenue, New York, N. Y.
- Slutsky, Benjamin  
65 Norfolk Street, New York, N. Y.
- Smith, Edward Joseph  
1561 West 11 Street, Brooklyn, N. Y.
- Smolowitz, Bernard  
29 West 119 Street, New York, N. Y.
- Sorin, Mae  
2166 Eighth Avenue, New York, N. Y.
- Sorkenn, Ralph  
307 West 3 Street, Chester, Pa.
- Speller, Clarence William  
22 Wyandotte Avenue, Highland Falls, N. Y.
- Spivack, Meyer  
67 East 106 Street, New York, N. Y.
- Steinberg, Eva  
2867 West 27 Street, Brooklyn, N. Y.
- Strassberg, Sidney  
544 St. Paul's Place, New York, N. Y.
- Strauss, David  
473 Jerome Street, Brooklyn, N. Y.
- Sussman, Henry  
1956 Crotona Parkway, New York, N. Y.
- Tabachnick, Max Joseph  
178 Hooper Street, Brooklyn, N. Y.
- Talenbloom, Julius  
220 Campbell Avenue, Revere, Mass.
- Tandlich, Henry  
3124 Mermaid Avenue, Coney Island, N. Y.
- Tansky, David  
810 Hunts Point Avenue, New York, N. Y.
- Tapola, Lucille Hylia  
600 West 189 Street, New York, N. Y.
- Tekel, Benjamin  
617 East 11 Street, New York, N. Y.
- Thimble, Rudolph Naprstek  
40-19 Twenty-Fourth Street, Long Island, City, N. Y.
- Tobis, Abraham  
832 Whitlock Avenue, New York, N. Y.
- Tolkoff, Paul  
18 East 107 Street, New York, N. Y.
- Tripoli, Bartholomew Antonio  
Box 403, Stafford Springs, Conn.
- Turetsky, David  
11817 Liberty Avenue, Richmond Hill, N. Y.
- Valentino, Louis Rudolph  
74 President Street, Brooklyn, N. Y.
- Veprovsky, Lawrence  
1430 First Avenue, New York, N. Y.
- Verdrager, David  
541 Flushing Avenue, Brooklyn, N. Y.
- Vitale, Leonida P.  
1637-68th Street, Brooklyn, N. Y.
- Vix, George  
132-03 Cranston Avenue, Belle Harbor, N. Y.
- Vogel, Joseph  
434 Beach 124 Street, Rockaway Park, L. I.
- Waldinger, David  
1231 Lincoln Place, Brooklyn, N. Y.
- Warfman, Alice Elaine  
1057 Hoe Avenue, New York, N. Y.
- Waterbury, Whitford  
1665 Grand Concourse, New York, N. Y.
- Weinberg, Rubín  
224 South 3 Street, Brooklyn, N. Y.
- Weiner, Irving J.  
1925 Crotona Avenue, New York, N. Y.
- Weinstein, Isadore  
1927 Second Avenue, New York, N. Y.
- Weinstein, Milton  
236 Clinton Street, New York, N. Y.
- Weiss, Alfred Schoen  
641 Vanderbilt Avenue, Brooklyn, N. Y.
- Wieder, Irving Philip  
3625 Mermaid Avenue, Brooklyn, N. Y.
- Wolin, Louis  
9600 Roosevelt Avenue, Corona, N. Y.
- Yanowitz, Irving  
1515-45th Street, Brooklyn, N. Y.
- Yosepowitz, Joseph  
1336 Brook Avenue, New York, N. Y.
- Yudcovich, Jack  
700 East 161 Street, New York, N. Y.
- Zanca, Anthony  
1320 Brook Avenue, New York, N. Y.
- Zelenko, Alexander D.  
389 Beech Street, Teaneck, N. J.
- Zeltzer, Irving  
553 Williams Avenue, Brooklyn, N. Y.

Zilberg, Bention  
59 West 73 Street, c/o Goodkind, New York,  
N. Y.

Zincover, Julius  
1056-50th Street, Brooklyn, N. Y.

Zirin, Benjamin  
75 East 109 Street, New York, N. Y.  
(279)

## EVENING COURSES

Abrevaya, Leon  
978 Grant Avenue, New York, N. Y.

Baumann, Fred David  
537 Wythe Avenue, Brooklyn, N. Y.

Baumann, Sarah  
537 Wythe Avenue, Brooklyn, N. Y.

Beck, Theodore E.  
7015 Narrows Avenue, Brooklyn, N. Y.

Behr, Anna  
38 West 50 Street, New York, N. Y.

Berg, Henry  
169 East 105 Street, New York, N. Y.

Berner, May  
3904 Neptune Avenue, Sea Gate, N. Y.

Bisen, David  
2054-77th Street, Brooklyn, N. Y.

Chapman, William I.  
2062 Davidson Avenue, New York, N. Y.

Cheng, Chiang  
425 West 114 Street, New York, N. Y.

deMackiewicz, Julius Hollwegs  
15 Echo Avenue, New Rochelle, N. Y.

Dotto, Rose Z.  
21 Hazelwood Avenue, Newark, N. J.

Dunn, Dan E.  
476 West 165 Street, New York, N. Y.

Feigenbaum, Robert  
447 East 83 Street, New York, N. Y.

Feinberg, Harry Isadore  
340 Ellery Street, Brooklyn, N. Y.

Ferrara, John  
247 Humboldt Street, Brooklyn, N. Y.

Finkelstein, Benjamin  
180 Grand Street, Brooklyn, N. Y.

Friend, Sidney  
353 Central Park West, New York, N. Y.

Gaer, Nathaniel  
641 Lafayette Avenue, Brooklyn, N. Y.

Gianunzio, V. Mamaroneck, N. Y.

Glassman, Morris Leon  
977 DeKalb Avenue, Brooklyn, N. Y.

Grinwalski, Andrew  
939 Bushwick Avenue, New York, N. Y.

Gritz, David  
68 Fairview Avenue, Newark, N. J.

Hardy, William H.  
351 West 48th Street, New York, N. Y.

Hashiguchi, Tetsu  
9 West 98 Street, New York, N. Y.

Heller, Samuel  
2211 Second Avenue, New York, N. Y.  
Hopenfeld, David  
6 Spa Place, Jamaica, L. I.

Isaacs, Irving L.  
1046 East 29 Street, Brooklyn, N. Y.

Katz, Jacob F.  
865 East 178 Street, New York, N. Y.

Keilin, Harry  
1685 Bryant Avenue, New York, N. Y.

Kelly, Charles F.  
3131 Broadway, New York, N. Y.

Klein, Gustav Joseph  
57 Bradford Street, Harrison, N. Y.

Koslosky, Henry  
366 Kingston Avenue, Brooklyn, N. Y.

Krispien, Arthur  
216 Park Avenue, Hoboken, N. J.

Lacovara, George  
754 East 215 Street, New York, N. Y.

Law, Arthur T.  
252 East 128 Street, New York, N. Y.

Law, Leonard L.  
252 East 128 Street, New York, N. Y.

Levinson, Samuel E.  
136 Cook Street, New York, N. Y.

Levy, Bernard  
1837 Clinton Avenue, New York, N. Y.

Maclaira, Arnold Ira  
1512-45th Street, Brooklyn, N. Y.

Mascia, Saverio Alfredo  
403 East 105 Street, New York, N. Y.

Matchabelli, George  
2 East 78 Street, New York, N. Y.

Mazlish, David J.  
137a DeKalb Avenue, Jersey City, N. J.

Montiel, Nicholas  
268 West 84 Street, New York, N. Y.

Morlath, William  
518-34th Street, Woodcliff, N. J.

Moser, Walter Conrod  
524 Palisade Avenue, Weehawken, N. J.

Myers, Charles Augustus, Jr.  
310 St. John's Place, Brooklyn, N. Y.

Naddeo, Gaetano  
960 East 156 Street, New York, N. Y.

Nadel, Leo Harry  
92 St. Nicholas Avenue, New York, N. Y.

Ogilvie, Mary Gladys  
28 West 69 Street, New York, N. Y.

Passilia, August Joseph  
2808 Ft. Hamilton Parkway, Brooklyn, N. Y.

Perch, Mary d'Este  
603 Fifth Avenue, New York, N. Y.

Pietrafesa, Dominic Michael  
328 West 17 Street, New York, N. Y.

Pleskow, Morris  
634 East 180 Street, New York, N. Y.

- Plotnick, Arthur David  
1333 Brook Avenue, New York, N. Y.
- Pollack, Paul  
25 Barrett Street, Brooklyn, N. Y.
- Raffy, Marcel Joseph  
156 East 45 Street, New York, N. Y.
- Ricciardi, Rocco Raymond  
120 Lake Street, Jersey City, N. J.
- Rich, Anthony J.  
21 Evergreen Avenue, Rye, N. Y.
- Rimer, Max  
320 East 91 Street, New York, N. Y.
- Robinson, Annie  
313 East 43 Street, New York, N. Y.
- Rohrer, Beverly  
67 West 50 Street, New York, N. Y.
- Rosenberg, Emanuel  
1302 Avenue "K", Brooklyn, N. Y.
- Ruhfus, Paul  
34-73rd Street, New York, N. Y.
- Sager, Saul S.  
2854 West 25 Street, Brooklyn, N. Y.
- Sariego, Juan B.  
247 West 116 Street, New York, N. Y.
- Schedy, Walter  
254 Pennington Avenue, Passaic, N. J.
- Schwartz, Benjamin  
217 Bristol Street, Brooklyn, N. Y.
- Seider, Solomon  
86 West 183 Street, c/o Michaels, New York, N. Y.
- Shenit, Harry  
347 Bradford Street, Brooklyn, N. Y.
- Smith, Lillian Russell  
26 Lafayette Street, Brooklyn, N. Y.
- Smith, Maurice Harris  
2593 Sedgwick Avenue, New York, N. Y.
- Sonntag, Ernst  
30 West 76 Street, New York, N. Y.
- Spiekerman, Kraffe  
316 West 95 Street, New York, N. Y.
- Tansky, Harry  
810 Hunts Point Avenue, New York, N. Y.
- Thoden, Herman Joseph  
1969 Amsterdam Avenue, New York, N. Y.
- Vail, Frederick  
107 East 2 Street, Brooklyn, N. Y.
- Vogel, Newton Harry  
1433 Kensington Gardens, Far Rockaway, N. Y.
- Vos, Herbert  
875 Hunts Point Avenue, New York, N. Y.
- Weinstein, Max  
1657 Lexington Avenue, New York, N. Y.
- Wiegand, Adolph  
477 West 142 Street, New York, N. Y.
- Wilson, Alfred J. P.  
126 So. Park Avenue, Rockville Centre, N. Y.
- Zang, Rose Evelyn  
467 Bedford Avenue, Brooklyn, N. Y.
- Zucker, Abraham  
644 Warwick Street, Brooklyn, N. Y.

## SCHEME OF ATTENDANCE

## COLLEGE CLASS FIRST YEAR

*Tuesday*

	Section 1	Section 2	Section 3	Section 4	Section 5	Section 6
9-10	Botany Lect.	Botany Lect.	Botany Lect.	Botany Lect.	Botany Lect.	Botany Lect.
10-11	Posology	Posology	Posology	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.
11-12	Botany Lab.	Botany Lab.	Botany Lab.	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.
12-1	Botany Lab.	Botany Lab.	Botany Lab.	Pharmacy Lab. D 15 p	Pharmacy Lab. 10-11 p	Pharmacy Lab.
2-3	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.
3-4	Histology Lect. or Recit.*	Histology Lect. or Recit.*	Histology Lect. or Recit.*	Botany Recit.	Pharmacy Recit.	Pharmacy Recit.
4-5	Botany Lab.	Botany Lab.	Botany Lab.	Physics Recit.	Chemistry Recit.	Physics Recit.
5-6	Botany Lab.	Botany Lab.	Botany Lab.	Chemistry Recit.	Physics Recit.	Chemistry Recit.

*Thursday*

9-10	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.
10-11	Chemical Lab.	Chemical Lab.	Chemical Lab.	Posology	Posology	Posology
11-12	Chemical Lab.	Chemical Lab.	Chemical Lab.	Botany Lab.	Botany Lab.	Botany Lab.
12-1	Chemical Lab.	Chemical Lab.	Chemical Lab.	Botany Lab.	Botany Lab.	Botany Lab.
2-3	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.
3-4	Botany Recit.	Botany Recit.	Pharmacy Recit.	Histology Lect. or Recit.*	Histology Lect. or Recit.*	Histology Lect. or Recit.*
4-5	Phar. Arithmetic	Phar. Arithmetic	Phar. Arithmetic	Botany Lab.	Botany Lab.	Botany Lab.
5-6	Pharmacy Recit.	Pharmacy Recit.	Physics Recit.	Botany Lab.	Botany Lab.	Botany Lab.

*Saturday*

9-10	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.
10-11	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.	Chemical Lab.	Chemical Lab.	Chemical Lab.
11-12	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.	Chemical Lab.	Chemical Lab.	Chemical Lab.
12-1	Pharmacy Lab. D 15 p	Pharmacy Lab. D 15 p	Pharmacy Lab. D 15 p	Chemical Lab.	Chemical Lab.	Chemical Lab.
2-3	Physics Lect.	Physics Lect.	Physics Lect.	Physics Lect.	Physics Lect.	Physics Lect.
3-4	Physics Recit.	Chemistry Recit.	Chemistry Recit.	Pharmacy Recit.	Botany Recit.	Botany Recit.
4-5	Anal. Chem. Recit.	Anal. Chem. Recit.	Anal. Chem. Recit.	Anal. Chem. Recit.	Anal. Chem. Recit.	Anal. Chem. Recit.
5-6	Chemistry Recit.	Physics Recit.	Botany Recit.	Phar. Arithmetic	Phar. Arithmetic	Phar. Arithmetic

\*Histology Lecture and Recitation are given on alternate weeks.

*Monday*

Section 1 (X) *Toxicology* Section 2 (X) *Toxicology* Section 3 (X) Section 4 (Y) *Toxicology* Section 5 (Y) *Toxicology*  
 Mat. Med. Lect. Mat. Med. Lect. Mat. Med. Lect. Mat. Med. Lect. Mat. Med. Lect.  
 Phar' cog. Lab. Phar' cog. Lab. (Section X) Chemical Lab. Chemical Lab. Chemical Lab.

2-3 Coml. Pharmacy Chemistry Recit. Pharmacy Recit. Chemistry Recit.  
 3-4 Coml. Pharmacy Coml. Pharmacy Recit. Mat. Med. Recit. Pharmacy Recit.  
 4-5 Pharmacy Lect. Pharmacy Lect. Pharmacy Lect. Pharmacy Lect.  
 5-6 Chemistry Recit. Pharmacy Recit. Mat. Med. Recit. Chemistry Recit.

*Wednesday*

9-10 Pharmacy Recit. Mat. Med. Recit. Chemistry Recit. *D. op* Pharmacy Recit. Chemistry Recit.  
 10-1 Chemical Lab. Chemical Lab. (Section X) Pharmacy Recit. Pharmacy Lab. Pharmacy Lab.

2-3 Pharmacy Lect. Pharmacy Lect. Pharmacy Lect. Pharmacy Lect.  
 3-4 Chemistry Lect. Chemistry Lect. Chemistry Lect. Chemistry Lect.  
 4-5 Mat. Med. Recit. Coml. Pharmacy Coml. Pharmacy *D. op* Pharmacy Recit.  
 5-6 Chemistry Recit. Pharmacy Recit. Coml. Pharmacy Mat. Med. Recit.

*Friday*

9-10 Chemistry Lect. Chemistry Lect. Chemistry Lect. Chemistry Lect.  
 10-1 Pharmacy Lab. Pharmacy Lab. Pharmacy Lab. Phar' cog. Lab.  
 12-1 *Dispensing Lab* (Section X) Phar' cog. Lab. (Section Y)

2-3 *Disp* Pharmacy Recit. Pharmacy Recit. Pharmacy Recit. Pharmacy Recit.  
 3-4 Mat. Med. Recit. Mat. Med. Recit. Mat. Med. Recit. Mat. Med. Recit.  
 4-5 Mat. Med. Lect. Mat. Med. Lect. Mat. Med. Lect. Mat. Med. Lect.  
 5-6 Coml. Phar. Lect. Coml. Phar. Lect. Coml. Phar. Lect. Coml. Phar. Lect.

## UNIVERSITY CLASS FRESHMAN YEAR

## Tuesday

	Section A	Section B
9-10	Botany Lect.	Botany Lect.
10-11	Chemical Lab.	Chemical Lab.
11-12	Chemical Lab.	Chemical Lab.
12-1	Chemical Lab.	Chemical Lab.
2-3	Pharmacy Lect.	Pharmacy Lect.
3-4		English
4-5		American Government

## Wednesday

9-10	American Government	English
10-11	English	
11-12	Pharmacy Recit.	Pharmacy Recit.
12-1	Chemistry Recit.	Chemistry Recit.
2-3	<i>Handw</i> Botany Lect.	<i>Handw</i> Botany Lect.
3-4	Botany Lab.	Botany Lab.
4-5	Botany Lab.—Posology*	Botany Lab.—Posology*

## Thursday

9-10	Pharmacy Lect.	Pharmacy Lect.
10-11	Pharmacy Lab.	Pharmacy Lab.
11-12	Pharmacy Lab.	Pharmacy Lab.
12-1	<i>Disp</i> Pharmacy Lab.	<i>Handw</i> Pharmacy Lab.
2-3	Chemistry Lect.	Chemistry Lect.
3-4	Pharmacy Lab.	Pharmacy Lab.
4-5	Pharmacy Lab.	Pharmacy Lab.

## Friday

9-10	Botany Recit.	Botany Recit.
10-11	Physics Recit.	Physics Recit.
11-12	Anal. Chem. Recit.	Anal. Chem. Recit.
12-1	Phar. Arithmetic	Phar. Arithmetic
2-3	American Government	
3-4	English	American Government
4-5		

## Saturday

9-10	Chemistry Lect.	Chemistry Lect.
10-11	Botany Lab.	Botany Lab.
11-12	Botany Lab.	Botany Lab.
12-1	Botany Lab.	Botany Lab.
2-3	Physics Lect.	Physics Lect.
3-4	American Government	English
4-5	English	American Government

## UNIVERSITY CLASS SOPHOMORE YEAR

## Monday

	Section 6 (Z)	Section 7 (Z)	Section 8 (Z)
9-10	Mat. Med. Recit.	Pharmacy Recit.	Chemistry Recit.
10-11	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.
12-1	<i>Handw</i> Mat. Med. Lect.	<i>Handw</i> Mat. Med. Lect.	<i>Handw</i> Mat. Med. Lect.
2-3	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.
3-4	Chemistry Recit.	Mat. Med. Recit.	Pharmacy Recit.
4-5	Coml. Phar. Lect.	Coml. Phar. Lect.	Coml. Phar. Lect.

## Wednesday

9-10	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.
10-11	Phar'cog. Lab.	Phar'cog. Lab.	Phar'cog. Lab.
2-3	Coml. Pharmacy	Coml. Pharmacy	Coml. Pharmacy
3-4	Coml. Pharmacy	Coml. Pharmacy	Coml. Pharmacy
4-5	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.
5-6	Physics Lect.	Physics Lect.	Physics Lect.

\*Botany Laboratory and Posology are given on alternate weeks.

Friday

9-10	<sup>help</sup> Pharmacy Recit.	Mat. Med. Recit.	Mat. Med. Recit.
10-1	Chemical Lab.	Chemical Lab.	Chemical Lab.
2-3	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.
3-4	Mat. Med. Lect.	Mat. Med. Lect.	Mat. Med. Lect.
4-5	Mat. Med. Recit.	Chemistry Recit.	<sup>help</sup> Pharmacy Recit.
5-6	Pharmacy Recit.	Pharmacy Recit.	Mat. Med. Recit.

UNIVERSITY CLASS JUNIOR YEAR

Lecture and recitation courses extending throughout the year.

Section A

Section B

2-3	Anal. Chem. Lect.	<sup>Monday</sup> Theories of Chem. ?	Theories of Chem. Anal. Chem. Lect.
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Tuesday

9-10	Pharmacy Recit.	Chemistry Recit.
10-11	Pharmacy Lect.	Pharmacy Lect.
11-12	Chemistry Recit.	Pharmacy Recit.
12-1	Chemistry Lect.	Chemistry Lect.

Wednesday

12-1	Chemistry Lect.	Chemistry Lect.
------	-----------------	-----------------

Laboratory Courses

All hours on Monday, Tuesday, Wednesday and Friday from 9-1 and 2-5, excepting those stated for lectures and recitations will be devoted to laboratory work.

Dept. Chemistry (Sept. 26-Jan. 13)	14 wks	Dept. Materia Medica (Sept. 26-Nov. 18)
Dept. Materia Medica (Jan. 16-Mar. 9)	8 "	Dept. Pharmacy (Nov. 21-Feb. 10)
Dept. Pharmacy (Mar. 12-May 19)	10 "	Dept. Chemistry (Feb. 14-May 19)

UNIVERSITY CLASS SENIOR YEAR

Lecture and recitation courses extending throughout the year.

Tuesday

3-4	Analytical Chemistry Lect.
4-5	Food Analysis Lect.

Wednesday

11-12	Pharmacy Lect.
2-3	Biological Chemistry Lect.
3-4	Physiology Lect.

Laboratory Courses

All hours on Monday, Tuesday, Wednesday, Thursday and Friday from 9-1 and 2-5, excepting those stated for lectures will be devoted to laboratory work.

Analytical Chemistry, Sept. 26-Nov. 18	} 8 weeks each
Food Analysis and Toxicology, Nov. 21-Jan. 27	
Pharmacognosy and Taxonomy, Jan. 30-Mar. 23	
Pharmacy, Mar. 26-May 18	

Sept 26 - 1

## ACADEMIC CALENDAR

1927

- May 23-June 4. Registration for second, third and fourth year candidates.
- June 6-Aug. 8. Summer Laboratory Courses.
- Aug. 15-Sept. 3. Summer Quiz Courses.
- Sept. 1-3. Registration for first year candidates.
- 6-8. Supplementary Examinations.
- 26. Monday, Ninety-eighth Session begins. Second, Third and Fourth Year Classes assemble 9 a. m.
- 27. Tuesday, First Year Classes assemble 9 a. m.
- Oct. 10. Monday, Evening Special Course Classes assemble 7:00 p. m.
- Nov. 8. Tuesday, Election Day, Holiday.
- 24. Thursday, to November 26, Saturday, inclusive, Thanksgiving Holidays.
- Dec. 22. Thursday, to

1928

- Jan. 4. Wednesday, inclusive, Christmas Holidays.
- 5. Thursday, Sessions resumed.
- 16-21. Mid-Year Examinations.
- Feb. 13. Monday, Lincoln's Birthday, Holiday.
- 22. Wednesday, Washington's Birthday, Holiday.
- Apr. 16. Monday, Last Day for applying for final examinations.
- May 4. Friday, Evening Courses close.
- 14-19. Final College Course Examinations.
- 21-23. Final University Course Examinations.
- 24-31. Extra Pharmacy Laboratory for Second Year University Class.
- 30. Wednesday, First Year Class Exercises (Alumni Day).
- 31. Thursday, College Commencement.
- June 6. Wednesday, University Commencement.

## SCHEDULE OF EXAMINATIONS

### *Supplementary Examinations*

#### FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

1927

- June 25. Saturday, 1-4 p. m., Analytical Chemistry.
- July 18. Monday, 9-12 a. m., Botany Laboratory.
- Sept. 6. Tuesday, 9-12 a. m., Pharmacy and Latin.
- Tuesday, 2-5 p. m., Dispensing Pharmacy.
- 7. Wednesday, 9-12 a. m., Botany, Physiology, Posology.
- Wednesday, 2-5 p. m., Chemistry.
- 8. Thursday, 9-12 a. m., Analytical Chemistry.
- Thursday, 2-5 p. m., Physics.



## SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- June 25. Saturday, 1-4 p. m., Analytical Chemistry.  
 July 18. Monday, 9-12 a. m., Macro- and Micro-Pharmacognosy.  
 Sept. 6. Tuesday, 9-12 a. m., Pharmacy and Jurisprudence.  
 Tuesday, 2-5 p. m., Dispensing Pharmacy and Accounting.  
 7. Wednesday, 9-12 a. m., Materia Medica and Toxicology.  
 Wednesday, 2-5 p. m., Pharmaceutical Chemistry.  
 8. Thursday, 9-12 a. m., Analytical Chemistry.  
 Thursday, 2-5 p. m., Organic Chemistry.

## THIRD YEAR UNIVERSITY CLASS

- Sept. 6. Tuesday, 9-12, Department of Pharmacy.  
 7. Wednesday, 9-12, Department of Materia Medica.  
 8. Thursday, 9-12, Analytical Chemistry.  
 Thursday, 2-5, Industrial Chemistry.

*Mid-Year Examinations*

## 1928 FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

- Jan. 17. Tuesday, 9-1, Botany.  
 Tuesday, 2-5, Posology, Botany Laboratory.  
 18. Wednesday, 9-12, English.  
 Wednesday, 2-5, American Government.  
 19. Thursday, 9-12, Pharmacy.  
 Thursday, 2-5, Dispensing Pharmacy.  
 21. Saturday, 9-1, Physics, Chemistry.  
 Saturday, 2-5, Analytical Chemistry.

## SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- Jan. 16. Monday, 9-12, Materia Medica, Toxicology.  
 Monday, 2-5, Pharmacognosy.  
 18. Wednesday, 9-12, Analytical Chemistry.  
 Wednesday, 2-5, Chemistry.  
 20. Friday, 9-12, Pharmacy.  
 Friday, 1-3, Dispensing Pharmacy.  
 Friday, 3-5, Commercial Pharmacy.

*Final Examinations*

## FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

- 1928  
 May 15. Tuesday, 9-12, Botany, Posology.  
 Tuesday, 2-5, Chemistry.  
 17. Thursday, 9-12, Physics.  
 Thursday, 2-5, Pharmacy and Pharmaceutical Latin.  
 19. Saturday, 9-12, English.  
 Saturday, 2-5, American Government.

## SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- May 14. Monday, 9-12, Materia Medica, Toxicology.  
Monday, 2-5:30, Pharmaceutical Jurisprudence and Commercial Pharmacy.
16. Wednesday, 9-12, Pharmacy.  
Wednesday, 2-5, Chemistry.
18. Friday, 9-12, Univ. Physics.

## UNIVERSITY CLASSES

- May 21. Monday, 9-12, Junior and Senior Pharmacy.  
Monday, 1-4, Junior and Senior Analytical Chemistry.
22. Tuesday, 9-12, Junior Organic Chemistry; Senior Food Analysis and Toxicology.  
~~Tuesday, 1-4, Junior and Senior Dispensing Pharmacy.~~
23. Wednesday, 9-5, Senior Biological Chemistry and Physiology.

SYNOPSIS OF STUDIES SUBSEQUENT TO THE SESSION OF 1927-1928

COLLEGE CLASS

*First Year* (The same as for 1927-1928)

*Second Year*

		Class Hours	Laboratory Hours	Points
(Beginning with the Session of 1928-1929.)				
MM 61-62	Pharmacognosy	0	3	3
Chm. 75-76	Inorganic Chemistry	3	0	6
Chm. 53-54	Analytical Chemistry	0	3	3
Chm. 69	Physics	1	0	2
MM 65-66	Physiology and Hygiene	2	0	4
MM 81	Biology of Micro-organisms	1	1	3
Phr. 55-56	Practical Pharmacy	3	2	8
Phr. 57-58	Dispensing Pharmacy	1	1	3
Phr. 63-64	Commercial Pharmacy and Jurisprudence	1½	1½	4½

*Third Year*

(Beginning with the Session of 1928-1929.)

		Class Hours	Laboratory Hours	Points
MM 105-106	Materia Medica	3	0	6
MM 121-122	Toxicology	1	0	2
Chm. 103-104	Organic Chemistry	3	0	6
Chm. 107-108	Analytical Chemistry	1	3	5
Chm. 129	New Remedies	1	0	2
Phr. 101-102	Manufacturing Pharmacy	2	3	7
Phr. 111-112	Dispensing Pharmacy	4	4	12
Phr. 123-124	Merchandising	3	0	6
MM 125-126	Pharmaceutical Sundries	1	0	2

UNIVERSITY CLASS

*Second Year*

(Beginning with the Session of 1928-1929.)

		Class Hours	Laboratory Hours	Points
MM 61-62	Pharmacognosy	0	2	2
MM 65-66	Physiology and Hygiene	2	0	4
MM 79-80	Bacteriology	1	2	4
Chm. 69	Physics	1	0	2
Chm. 75-76	Inorganic Chemistry	3	0	6
Chm. 53-54	Analytical Chemistry	0	3	3
Chm. 71	Physics Laboratory	0	2	2
Phr. 55-56	Practical Pharmacy	3	3	9

Phr. 57-58	Dispensing Pharmacy	1	2	4
Phr. 63-64	Commercial Pharmacy and Pharmaceutical Jurisprudence	1½	1½	4½
Coll. 77-78	German	5	0	10

*Third Year*

(Beginning with the Session of 1929-1930.)

		Class Hours	Laboratory Hours	Points
MM 105-106	Materia Medica	3	0	6
MM 121-122	Toxicology	1	0	2
MM 113-114	Pharmacognosy	0	2	2
Chm. 103-104	Organic Chemistry	3	0	6
Chm. 107-108	Analytical Chemistry	1	10	12
Chm. 130-131	Theories of Chemistry	1	0	2
Phr. 109-110	Advanced Pharmacy	3	5	11
Phr. 111-112	Dispensing Pharmacy	0	2	2
Coll. 115-116	Mathematics	5	0	10

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# Columbia University Bulletin of Information

## COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

ANNOUNCEMENT

1928-1929

MORNINGSIDE HEIGHTS  
NEW YORK

# Columbia University Bulletin of Information

Twenty-eighth Series, No. 48

August 25, 1928

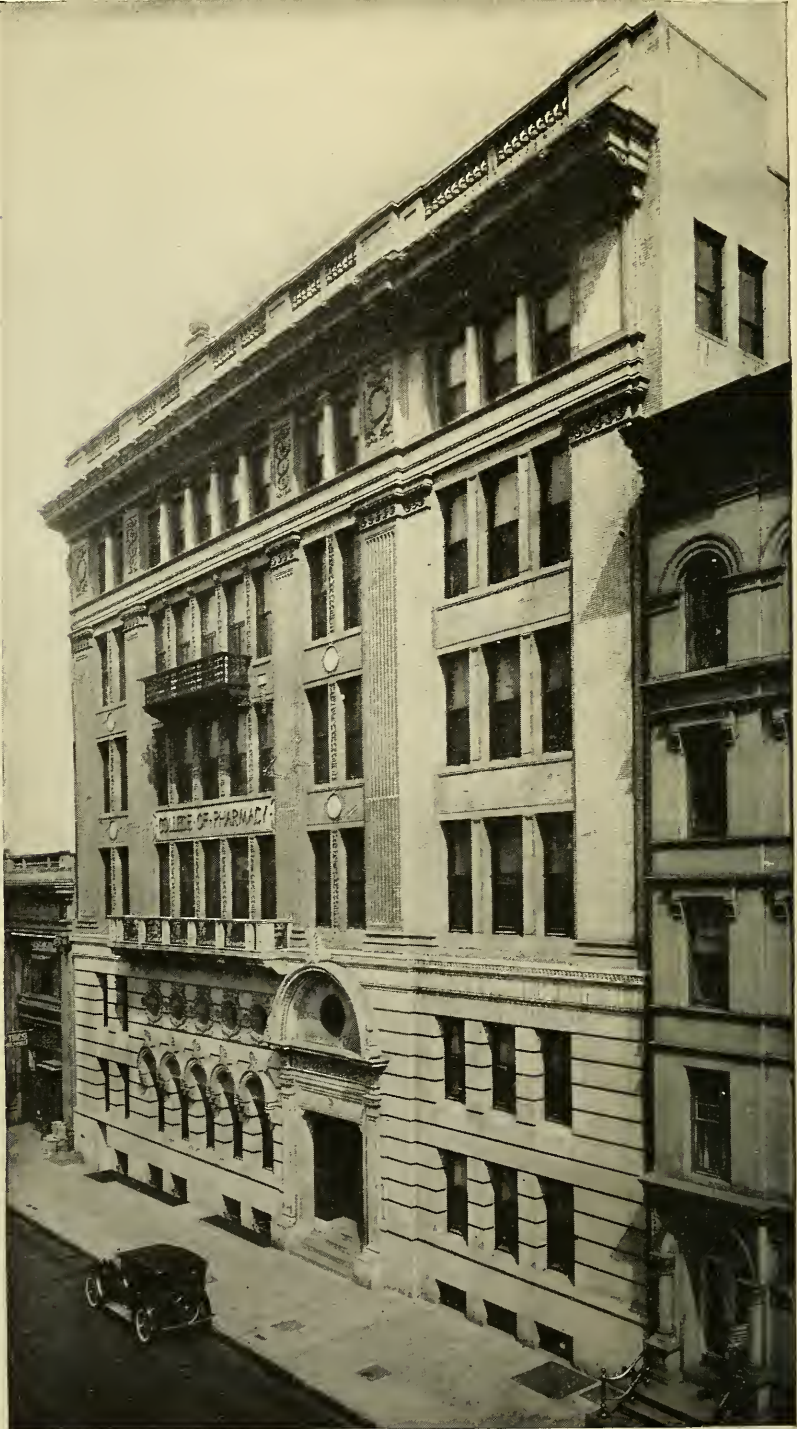
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1. Annual Reports of the President and Treasurer to the Trustees.
2. The Catalogue of the University, price 25 cents, and the Announcements of the several Colleges and Schools, and of certain Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.
3. Other publications of the University, including the annual Directory of Officers and Students, are issued as Bulletins.

C. P. 23,000-1928

For special or more detailed information than is given in this announcement, applicants are requested to address the Registrar of the College, 115 West Sixty-eighth Street. His office hours are as follows: From September 1, 1928 to May 1, 1929, daily except Saturdays, 9 a. m. to 5 p. m.; Saturdays, 9 a. m. to 12 m. Other portions of the year, daily (except Saturdays), 9:30 a. m. to 4 p. m.; Saturdays, 9:30 a. m. to 12 m.





COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

113-119 WEST SIXTY-EIGHTH STREET





Columbia University  
Bulletin of Information

COLLEGE OF PHARMACY  
OF THE CITY OF NEW YORK

ANNOUNCEMENT

1928-1929

MORNINGSIDE HEIGHTS  
NEW YORK

This College reserves the right to make such changes in the curriculum, schedule, calendar and regulations appearing in this announcement, as circumstances may require.

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# 1928

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		
<b>Jan.</b>	1 8 15 22 29	2 9 16 23 30	3 10 17 24 31	4 11 18 25	5 12 19 26	6 13 20 27	7 14 21 28		<b>May</b>	.. 6 13 20 27	.. 7 14 21 28	1 8 15 22 29	2 9 16 23 30	3 10 17 24	4 11 18 25	5 12 19 26		<b>Sept.</b>	.. 2 9 16 23	.. 3 10 17 24	.. 4 11 18 25	.. 5 12 19 26	.. 6 13 20 27	.. 7 14 21 28	.. 8 15 22 29
<b>Feb.</b>	.. 5 12 19 26	.. 6 13 20 27	.. 7 14 21 28	1 8 15 22 29	2 9 16 23 30	3 10 17 24	4 11 18 25		<b>June</b>	.. 10 17 24	.. 11 18 25	.. 12 19 26	.. 13 20 27	.. 14 21 28	.. 15 22 29	.. 16 23 30		<b>Oct.</b>	.. 7 14 21	.. 8 15 22	.. 9 16 23	.. 10 17 24	.. 11 18 25	.. 12 19 26	.. 13 20 27
<b>March</b>	.. 4 11 18 25	.. 5 12 19 26	.. 6 13 20 27	1 8 15 22	2 9 16 23	3 10 17 24	4 11 18 25		<b>July</b>	1 8 15 22 29	2 9 16 23 30	3 10 17 24	4 11 18 25	5 12 19 26	6 13 20 27	7 14 21 28		<b>Nov.</b>	.. 4 11 18 25	.. 5 12 19 26	.. 6 13 20 27	.. 7 14 21 28	.. 8 15 22 29	.. 9 16 23 30	.. 10 17 24 25
<b>April</b>	1 8 15 22 29	2 9 16 23 30	3 10 17 24	4 11 18 25	5 12 19 26	6 13 20 27	7 14 21 28		<b>Aug.</b>	.. 5 12 19 26	.. 6 13 20 27	.. 7 14 21 28	.. 8 15 22 29	.. 9 16 23 30	.. 10 17 24 25	.. 11 18 25 26		<b>Dec.</b>	.. 2 9 16 23	.. 3 10 17 24	.. 4 11 18 25	.. 5 12 19 26	.. 6 13 20 27	.. 7 14 21 28	.. 8 15 22 29

# 1929

<b>Jan.</b>	.. 6 13 20 27	.. 7 14 21 28	1 8 15 22 29	2 9 16 23 30	3 10 17 24	4 11 18 25	5 12 19 26		<b>May</b>	.. 5 12 19 26	.. 6 13 20 27	1 8 15 22 29	2 9 16 23 30	3 10 17 24	4 11 18 25		<b>Sept.</b>	1 8 15 22 29	2 9 16 23 30	3 10 17 24	4 11 18 25	5 12 19 26	6 13 20 27	7 14 21 28	
<b>Feb.</b>	3 10 17 24	4 11 18 25	5 12 19 26	6 13 20 27	7 14 21 28	8 15 22 29	9 16 23 30	1 8 15 22 29	<b>June</b>	2 9 16 23 30	3 10 17 24	4 11 18 25	5 12 19 26	6 13 20 27	7 14 21 28	8 15 22 29		<b>Oct.</b>	6 13 20 27	7 14 21 28	8 15 22 29	9 16 23 30	10 17 24 25	11 18 25 26	12 19 26 27
<b>March</b>	.. 10 17 24	.. 11 18 25	.. 12 19 26	1 8 15 22	2 9 16 23	3 10 17 24	4 11 18 25	5 12 19 26	<b>July</b>	.. 7 14 21 28	.. 8 15 22 29	.. 9 16 23 30	.. 10 17 24 25	.. 11 18 25 26	.. 12 19 26 27	.. 13 20 27		<b>Nov.</b>	.. 10 17 24 25	.. 11 18 25 26	.. 12 19 26 27	.. 13 20 27	.. 14 21 28	.. 15 22 29	.. 16 23 30
<b>April</b>	.. 14 21 28	.. 15 22 29	.. 16 23 30	1 8 15 22	2 9 16 23	3 10 17 24	4 11 18 25	5 12 19 26	<b>Aug.</b>	.. 18 25 26	.. 19 26 27	.. 20 27 28	.. 21 28 29	.. 22 29 30	.. 23 30 31	.. 24 31		<b>Dec.</b>	.. 18 25 26	.. 19 26 27	.. 20 27 28	.. 21 28 29	.. 22 29 30	.. 23 30 31	.. 24 31

# 1930

<b>Jan.</b>	.. 12 19 26	.. 13 20 27	1 8 15 22 29	2 9 16 23 30	3 10 17 24	4 11 18 25	5 12 19 26		<b>May</b>	.. 11 18 25	.. 12 19 26	.. 13 20 27	.. 14 21 28	.. 15 22 29	.. 16 23 30	.. 17 24 25		<b>Sept.</b>	.. 14 21 28	.. 15 22 29	.. 16 23 30	.. 17 24 25	.. 18 25 26	.. 19 26 27	.. 20 27 28	
<b>Feb.</b>	2 9 16 23	3 10 17 24	4 11 18 25	5 12 19 26	6 13 20 27	7 14 21 28	8 15 22 29	9 16 23 30	<b>June</b>	.. 15 22 29	.. 16 23 30	.. 17 24 25	.. 18 25 26	.. 19 26 27	.. 20 27 28	.. 21 28 29		<b>Oct.</b>	.. 12 19 26	.. 13 20 27	.. 14 21 28	.. 15 22 29	.. 16 23 30	.. 17 24 25	.. 18 25 26	
<b>March</b>	.. 9 16 23	.. 10 17 24	.. 11 18 25	.. 12 19 26	.. 13 20 27	.. 14 21 28	.. 15 22 29	1 8 15 22	<b>July</b>	.. 27 28 29	.. 28 29 30	.. 29 30 31	.. 30 31	.. 31	..	..		<b>Nov.</b>	.. 27 28 29	.. 28 29 30	.. 29 30 31	.. 30	.. 31	..	..	
<b>April</b>	.. 13 20 27	.. 14 21 28	.. 15 22 29	.. 16 23 30	1 8 15 22	2 9 16 23	3 10 17 24	4 11 18 25	<b>Aug.</b>	.. 31	..	..	..	..	..	..		<b>Dec.</b>	.. 28 29 30	.. 29 30 31	..	..	..	..	..	..

## OFFICERS AND TRUSTEES

### OFFICERS

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ELEANOR KERKER.....	<i>Assistant Registrar</i>
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IRVING McKESSON, 1929	CHARLES S. LITTELL, 1930
ALBERT E. STRATTON, 1929	HERMAN WALTER, 1930
THEODORE WEICKER, 1929	CHARLES FRIEDGEN, 1931
JACOB WEIL, 1929	ADOLPH HENNING, 1931
DAVID COSTELO, 1930	J. LEON LASCOFF, 1931
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DAVID COSTELO	CHARLES W. HOLTON
Dean H. H. RUSBY, <i>ex-officio</i>	

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CHARLES S. LITTELL

*Property Committee*

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HENRY C. LOVIS

Dean H. H. RUSBY

# FACULTY OF THE COLLEGE OF PHARMACY

## OFFICERS

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HENRY V. ARNY, Ph.M., Ph.D.....	<i>Associate Dean and Elected Member of the University Council</i>
GEORGE C. DIEKMAN, Ph.G., M.D.....	<i>Secretary</i>
VIRGIL COBLENTZ, A.M., Ph.D., Phar.M., F.C.S..	<i>Professor Emeritus of Chemistry</i>
GEORGE C. DIEKMAN, Ph.G., M.D.....	<i>Professor Emeritus of Pharmacy</i>
HENRY H. RUSBY, M.D., Ph.M.....	<i>Professor of Materia Medica</i>
HENRY V. ARNY, Ph.M., Ph.D.....	<i>Professor of Chemistry</i>
CURT P. WIMMER, A.M., Ph.M., Phar.D.....	<i>Professor of Pharmacy</i>
CARLTON C. CURTIS, Ph.D....	<i>Associate Professor of Botany, Columbia University</i>
CHARLES W. BALLARD, Ph.Ch., A.M., Ph.D.	<i>Associate Professor of Materia Medica</i>
HUGO H. SCHAEFER, Ph.C., Ph.D.....	<i>Associate Professor of Chemistry</i>
LEWIS N. BROWN, Phar.D.....	<i>Associate Professor of Pharmacy</i>
HERBERT C. KASSNER, B.S., Ph.D.....	<i>Associate Professor of Chemistry</i>
FANCHON HART, Ph.G.....	<i>Acting Associate Professor of Materia Medica</i>
HORACE N. CARTER, Ph.G., B.S.....	<i>Associate Professor of Pharmacy</i>
HARRY TAUB, B.S., A.M.....	<i>Assistant Professor of Materia Medica</i>
FREDERICK D. LASCOFF, Ph.G., B.S.....	<i>Assistant Professor of Pharmacy in Charge of Commercial Pharmacy</i>
JACOB DORFMAN, Ph.G., A.M.....	<i>Assistant Professor of Pharmacy</i>
WILLIAM MACSATA, Ph.Ch.....	<i>Assistant Professor of Chemistry</i>
ABRAHAM TAUB, B.S., A.M.....	<i>Assistant Professor of Physics and Chemistry</i>

## INSTRUCTORS

LESLIE JAYNE, B.S.....	<i>Instructor in Analytical Chemistry</i>
PHILIP KERKER, A.B.....	<i>Instructor in Materia Medica</i>
SAUL KAYE, Ph.G.....	<i>Instructor in Pharmacy</i>
FRANK POKORNY, Ph.Ch.....	<i>Instructor in Materia Medica</i>
<sup>1</sup> JOSEPH E. ADAMS, Ph.Ch.....	<i>Instructor in Materia Medica</i>
ALEITA HOPPING, Ph.D.....	<i>Instructor in Physiology</i>
MAXWELL KARSHAN, B.S., Ph.D.....	<i>Instructor in Biological Chemistry</i>
WILLIAM KEENAN, Ph.G.....	<i>Instructor in Materia Medica</i>
MILTON D. SEWELL, Ph.G., B.S.....	<i>Instructor in Physics and Chemistry</i>

<sup>1</sup>Absent on leave 1928-1929.

THEODORE FAILMEZGER, Ph.Ch.....	<i>Instructor in Chemistry</i>
JOSEPH P. MIALE, Ph.Ch.....	<i>Instructor in Pharmacy</i>
HELEN TIMMERMANN, B.S., Ph.D.....	<i>Instructor in Materia Medica</i>
SAMUEL LIBERMAN, Ph.Ch., B.S.....	<i>Instructor in Chemistry</i>
VICTOR LEWITUS, Ph.G., B.S.....	<i>Instructor in Materia Medica</i>
RUDOLF HAUCK, Ph.Ch., B.S.....	<i>Instructor in Pharmacy</i>
HERMAN J. AMSTERDAM, Ph.G., B.A.....	<i>Instructor in Pharmacy</i>
CHARLES H. SOREN, Ph.G., B.S.....	<i>Instructor in Chemistry</i>
EDWARD ANZELMI, Ph.Ch.....	<i>Instructor in Chemistry</i>
MARGUERITE C. DIMLER, B.S.....	<i>Instructor in Physics and Chemistry</i>
DOMINICK FANELLI, Ph.Ch., B.S.....	<i>Instructor in Pharmacy</i>
LESTER C. DICK, Ph.Ch.....	<i>Instructor in Pharmacy</i>
HORACE T. F. GIVENS, Ph.Ch.....	<i>Instructor in Pharmacy</i>

## LECTURERS

ISIDORE NEUSTAEDTER, Phar.D., LL.B.....	<i>Lecturer in Pharmaceutical Jurisprudence</i>
GEORGE D. MCJIMSEY, M.A.....	<i>Lecturer in English and American Government</i>
ARTHUR H. INGENHUETT.....	<i>Lecturer in German</i>

## UNIVERSITY OFFICERS OF ADMINISTRATION

FRANK DIEHL FACKENTHAL, A.B.....	<i>Secretary of the University</i>
ADAM LEROY JONES, Ph.D.....	<i>Director of University Admissions</i>
CHARLES C. WILLIAMSON, Ph.D.....	<i>Director of Libraries</i>
ROGER HOWSON, M.A.....	<i>Librarian</i>
DAVID M. UPDIKE, M.E.....	<i>Superintendent of Buildings and Grounds</i>
HENRY V. ARNY, Ph.D.....	<i>Librarian of the College of Pharmacy</i>
EDWARD J. GRANT, A.B.....	<i>Registrar of the University</i>
CHARLES S. DANIELSON.....	<i>Bursar of the University</i>
HENRY LEE NORRIS, M.E.....	<i>Director of Works</i>



# COLUMBIA UNIVERSITY

Columbia University was founded in 1754 as Kings College by royal grant of George II, King of England, "for the Instruction of youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws and Doctor of Law (Doctor Juris); the School of Medicine with courses leading to the degree of Doctor of Medicine; the Schools of Mines, Engineering, and Chemistry, with courses leading to the Bachelor of Science degree, the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degree of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degrees of Bachelor of Literature and Master of Science; the School of Business, with courses leading to the degrees of Bachelor and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degrees of Bachelor of Science and Doctor of Dental Surgery; the non-professional graduate Faculties of Political Science, Philosophy and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy. In addition to these Schools and Faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; and the College of Pharmacy of the City of New York, with courses leading to the degrees of Pharmaceutical Chemist and Bachelor of Science.

The University maintains three sessions during the year: The Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education and to take courses toward a diploma or an academic degree; Home Study courses are also offered to persons who are unable to take work in residence.

## ADMISSION

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standard of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the *Announcement* of each School will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

#### WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar. Applications for the return of fees must be made in writing at the time of withdrawal.

The Dean or Director of the school or faculty concerned may, for reasons of weight, grant a leave of absence to a student in good standing.

#### ANNOUNCEMENTS

The *Announcements* of each College or School, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

The *Announcement* of each School contains a schedule of fees and expenses for the courses in that School.

#### LIBRARY

The libraries of the University contain about 1,025,000 volumes, exclusive of unbound pamphlets. The various departments of instruction have also special libraries in connection with their lecture rooms and laboratories. The Avery Architectural Library, the Law Library, the Ella Weed Library of Barnard College, Teachers College Library, and the libraries of the College of Physicians and Surgeons, the School of Dental and Oral Surgery, and the College of Pharmacy, are all available to students of the University.

## RESIDENCE HALLS

There are four residence halls for men on South Field: Furnald with 282 rooms, Hartley with 300, John Jay with 476 and restaurants adequate for all men students, and Livingston with 300 rooms. Johnson Hall, on East Field, with accommodations of room and board for 360 students in the graduate and professional schools and Tompkins Hall, situated on Claremont Avenue in immediate proximity to the campus, with a capacity for 100 graduate students, are residence halls for women.

All the University residence halls, for both men and women, are under the supervision of advisory committees appointed by the President, consisting of University officers and assisted by committees made up of residents in the halls.

Copies of Residence Halls Announcements giving floor plans and dormitory regulations together with application blanks will be furnished on request by the Secretary of the University, 213 Library.

Detailed information and advice concerning desirable rooms and boarding places in the vicinity of the campus for both men and women may be obtained by writing to the Residence Bureau, Room M, Earl Hall.

In addition to the dining-halls in John Jay and Johnson the University maintains the following cafeteria restaurants (service *à la carte*) which furnish wholesome food at moderate rates: The Commons (men and women) University; Barnard Hall Lunch Room (women) Barnard Hall; Teachers College Cafeteria (men and women) Grace Dodge Hall, 121 St. The Columbia University Press Bookstore, located in the basement of Journalism, conducts a soda fountain where light luncheons are served.

## GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the Medical Director. On the basis of this examination, advice is given as to the kind and amount of exercise best adapted to his needs. Barnard Hall, of Barnard College, and Thompson Hall, of Teachers College, are thoroughly equipped with physical training facilities for women students.

## EARL HALL

Earl Hall was given to Columbia University by the late William Earl Dodge for the religious and social activities of the students. On the main floor, reached by the campus entrance, are the Appointments Office, Residence Bureau, Men's Residence Halls Office (where may also be found the Director of Earl Hall who is in charge of social affairs on the campus), the Trophy Room and Lobby, containing team pictures and trophies. On the upper floor are located offices for the Chaplain of the University and the Director of Religious Activities, and an auditorium seating 400 people which is available for student receptions and dances. The first floor (entrance from Broadway) is occupied by the offices of the University Medical Officer.

## MEDICAL SERVICE

The University Medical Officer has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. The University Medical Officer, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists and nursing care, will receive such information upon applying at the office of the University Medical Officer.

# THE COLLEGE OF PHARMACY

## IMPORTANT ANNOUNCEMENTS

### *Centennial Celebration*

Owing to our change from a two- to a three-year course, there will be no commencement exercises for the degree of Graduate in Pharmacy at the close of the session of 1928-1929. It so happens that this *lapsus* occurs upon the occasion of the One Hundredth Anniversary of the founding of our College, so that appropriate Centennial Celebration Exercises may substitute the usual Commencement Program. The graduates of our University Courses will participate as usual in the Columbia Commencement Exercises. The College Centennial will be celebrated, partly in connection with those exercises, and partly by special ceremonies at the College and upon the University grounds. Due announcement of the complete program will be made at the proper time.

### *Graduate Course*

Beginning with the session of 1928-1929, a graduate course of two years will be offered. This course, leading to the degree of Doctor of Pharmacy, will be open to Graduates with the Baccalaureate Degree, conferred by this school or by other schools of pharmacy maintaining equivalent courses of study. The course will consist of two full years of study in residence. Thirty hours weekly will be occupied in research work in the department representing the major subjects, and three hours weekly in each of the other two departments. For this session, not more than two students will be matriculated in each of the three departments, both positions in the Department of Pharmacy being already filled.

### *Fourth Year, University Course*

Due to lack of accommodations it will be possible for the year 1928-1929 to accept but a limited number in this class.

## GENERAL STATEMENT

The ninety-ninth annual session of the College of Pharmacy, open to both men and women, will begin on Monday, September 24, 1928.

## THE COLLEGE BUILDING

The location of the College is at one of the most readily accessible points in the City. Within two blocks are stations of the elevated and underground railroads, and the Broadway, Columbus and Amsterdam Avenue lines connect with nearly all surface lines in the City. The central buildings of the University are reached within fifteen minutes from the door of the College.

The College Building was erected in 1894 after a study of the principal buildings of the kind in this country and abroad. So great has been the increase in the

applications for admission that it was found necessary in 1923 to provide greater accommodations in the form of an additional connecting building.

In its planning, two principal objects were kept in view; first, provision for a large increase in the membership of the first and second-year classes; second, greatly increased and improved facilities for the work of the higher classes. In connection with the latter, extensive provision has been made for research work, by both faculty and special students. Our Library has also been greatly improved, the entire lower floor of the new building having been reserved for its accommodation.

#### THE LIBRARY

The Library is in charge, during College hours, of a trained librarian, who is ready to offer any assistance desired by readers. It contains the important works of reference required in the different departments of instruction, and for the various branches of science taught in the College of Pharmacy. It covers, indeed, a very broad field in all departments of chemistry, botany, and pharmacy. Should the resources of the College be insufficient for some special purpose, the student has recourse to such great library storehouses as the General Library of Columbia University, on Morningside Heights, the Library of the College of Physicians and Surgeons, School of Dental and Oral Surgery, the New York Academy of Medicine, the New York Botanical Garden, and others, and he will also be able, by special arrangement, to borrow from the great Library of the Surgeon-General's office at Washington.

The Library contains an extensive series of periodicals on chemistry, pharmacy, and botany, with their allied branches. All important journals relating to the work of the College are regularly received.

During regular College hours the Library is accessible not only to officers and students of the College, but also to the pharmacists of the city. Under certain regulations, books may be borrowed for outside use, but for obvious reasons important works of reference and unbound periodicals are not loaned. Library copies of the textbooks in use by the College may not be removed from the library.

#### INFORMATION BUREAU

The Information Bureau conducted by the library staff is designed to furnish pharmacists with data required in emergencies and not available in the library of the average drug store. During the past years of operation the Bureau has met with gratifying success, and it is steadily growing in popularity.

The following paragraphs explain the methods employed in conducting the service.

1. Telephone inquiries will be answered without charge. Residents of Greater New York or vicinity wishing to inquire about some pharmaceutical problem will call up the Information Bureau, Trafalgar 1733, and will receive information immediately if it is accessible.
2. Non-residents will have their problems answered by mail if they enclose a self-addressed stamped envelope.
3. Problems requiring extended research will be handled for a fee as moderate as consistent with high-grade service.

4. Translations of articles from foreign languages, either in full or in abstract, as well as transcripts of papers appearing in English or American pharmaceutical, chemical or botanical periodicals will be prepared for those desiring to pay for such service.

5. As in the past, all visitors to the Library, desiring to do their own research work, will be given courteous attention.

#### EMPLOYMENT FOR STUDENTS

The Registrar, so far as possible, assists students to secure such positions, in and about the city, as will not prevent them from regularly attending the College exercises.

The general plan adopted may be briefly stated as follows: Each pharmacist engages both a first and second year student, who shall work alternately three days during the week and half a day on Sunday. This allows the students half their time for College work and necessary rest. The College course lectures are arranged so as to harmonize with this plan.

Any student wishing to secure employment should upon entering College communicate with the Registrar.

Within easy reach of the College are some three thousand pharmacies, where students who have had some experience in pharmacy may obtain employment with salary sufficient to pay the whole or a large part of their expenses while attending College.

#### APPLICATION FOR ADMISSION

Every candidate for admission to the Pharmacy School is required to file with the Registrar of the College of Pharmacy a personal application and a transcript of his high school record, blank forms for which can be had upon application. He is also required to file an approval of his application for a pharmacy student qualifying certificate *before he can be accepted*, and he must secure the apprentice license before his matriculation can be considered complete.

#### NEW YORK STATE QUALIFYING CERTIFICATE

According to a provision of the New York State Pharmacy Law, no student can be permitted to register for the course in pharmacy unless he is at least seventeen years of age, and has graduated from an accredited four-year high school course, or who has covered courses acceptable to the Department of Education as a full equivalent thereof. The fulfillment of this requirement must be officially guaranteed by a qualifying certificate issued by the New York State Department of Education. If the applicant is entitled to receive the certificate, he will be so notified by letter; which letter should be presented to the Registrar of the College of Pharmacy. Blank forms for making application for the certificate may be secured either from the Registrar's office or from the Department of Education at Albany.

#### APPRENTICE LICENSE

The apprentice license should be applied for when the candidate commences his experience in a pharmacy or drug store. Those who have had no experience

before entering the pharmacy school, or whose experience has been in a drug store or pharmacy outside of New York State, will make application for their licenses through the school during the first week of the course, the Registrar acting as "preceptor." Blank forms for making application for the apprentice license may be secured either from the Registrar's office or from the Board of Pharmacy at Albany, N. Y.

#### HEALTH CERTIFICATE

All applicants for admission to any of the courses given must present an acceptable certificate of health from the candidate's family physician or from the University Medical Officer. In case of doubt an examination by the University Medical Officer will be required. Appropriate blanks are furnished by the Registrar of the college.

#### COURSES OFFERED

Two regular courses of study are offered, known respectively as the College Course and the University Course, and three evening courses in the Departments of *Materia Medica*, Pharmacy and Chemistry. A Summer Preparatory Course is provided, designed to enable students so desiring to better prepare themselves for the fall supplementary examinations.

#### THE COLLEGE COURSE

This course now comprises three full years of professional work, and is designed to fit the graduate for meeting the educational requirements of the Boards of Pharmacy of most of the States. The fundamental idea of this increase in time is generally accepted as being that of improving the quality of the work done, rather than of providing a large amount of additional work, this improvement applying particularly to the practical features of the course. The precise object of a course leading to the degree of Graduate in Pharmacy being to prepare such graduates for meeting the conditions of service in a retail pharmacy, the greater portion of the increased time has been assigned to the department of pharmacy, and to those features of the work of the other departments which are directly contributory thereto. After a careful study of the requirements, we have concluded that the time officially assigned for this course is insufficient, and we have added 128 hours for laboratory work in commercial and dispensing pharmacy.

The accomplishment of the better training that is sought necessarily calls for the introduction of new topics in the existing syllabi, and we call special attention to the following items.

We have always regarded a course in *materia medica* as being incomplete that did not include instruction in the apparatus, equipment and appliances included under the title of sick-room supplies, but no opportunity has heretofore offered for practical instruction of this kind. In our reorganized course 32 hours will be devoted to explaining and illustrating the nature and use of articles of this class. Although technically pertaining to the subject of *materia medica*, this instruction forms an important part of the students' preparation in commercial pharmacy.



Another qualification that we deem requisite for every well equipped pharmacist is a general knowledge of the nature and effects of bacteria in their relations with pharmaceutical practice. While we do not regard the conduct of a bacteriological laboratory as pertaining to the business of the ordinary pharmacist, we regard as necessary some knowledge of the principles of bacterial decomposition, sterilization and immunization, and 64 hours have been assigned for instruction in those subjects. While this subject, relating to the activities of plants, pertains technically to botany, it also has close relations with practical pharmacy.

One of the results of this addition of a third-year class will be a reduction in the number of matriculants each year, since the total capacity of the school is strictly limited. We are therefore obliged to announce that not more than 275 new students can be accepted for the session of 1928-1929.

#### THE UNIVERSITY COURSE

The principal changes, inaugurated in this course in 1927, consist in

1. An increase in the required attendance to five days, with an average of 32 hours, per week.

2. The introduction of courses of instruction in English, American Government, foreign language and mathematics, aggregating, during the first three years, a total of 32 points or 16 hours. This instruction given by teachers selected by Columbia College, is equivalent to one year's work in that institution.

3. The meeting by matriculants of the full entrance requirements of Columbia College.

4. The B.S. in Pharmacy Course, heretofore given by this school, has not been regarded as on a par with that of the college of liberal arts and science, however complete its professional character, but the course now offered possesses the full number of points of non-professional work of the ordinary baccalaureate course, in addition to that of a professional character.

5. The Department of Health of the City of New York has placed the Bachelor of Science in Pharmacy, graduating from this course, in the position of being eligible to conduct a bacteriological laboratory or to fill similar positions.

6. Owing to the amount of space and equipment required for the performance of the work of this course, the number of matriculants for this year is limited to thirty.

The attention of prospective students is called to the increasing call for graduates of advanced courses, to fill other professional positions. The general application of federal, state and municipal food and drug laws is creating a demand for thoroughly trained pharmaceutical inspectors and analysts. The obligations thus imposed upon manufacturers and merchants must result, and are doing so, in compelling them to employ scientifically trained assistants for responsible services which, formerly, were often left to incompetent and irresponsible employees. For this field of service the ordinary graduate in pharmacy is wholly unqualified.

To meet these higher requirements, three and four year courses of study, leading respectively to the degrees of Pharmaceutical Chemist (Ph.Ch.) and Bachelor of Science in Pharmacy (B.S. in Phar.), have been established. ? reorganized ?

In response to inquiries frequently received as to the advantages of the University Course over the College Course, the following synopsis has been prepared:

1. Members of the University class only are recognized as students of the University, and certain of the University privileges are open only to them.

2. The University Class attends on five days weekly, instead of three, as does the College Class, and the course includes regular work in academic subjects, conducted by special instructors supplied by the Dean of the Faculty of Columbia College, this work receiving full credit from the University toward the baccalaureate degree.

The introduction of these courses to our University classes has proved highly successful, especially as to the reception accorded them by the students themselves. Not only has this instruction been highly appreciated by the University Class, but there have been many inquiries as to the possible future introduction of the work to the College Course.

3. For the University Class, the College provides a thorough course of laboratory instruction in advanced Chemistry, Pharmacy and Physics and special courses in Microscopy and Bacteriology, consisting of both theoretical and laboratory instruction.

4. Not only are the degrees of Pharmaceutical Chemist and Bachelor of Science recognized as of higher rank than that of Graduate in Pharmacy, but the three and four year courses for which they are awarded qualify its recipients for many lines of pharmaceutical work that are not open to graduates from the College Course.

5. The degrees of Pharmaceutical Chemist and Bachelor of Science in Pharmacy are conferred by the University, that of Graduate in Pharmacy by the College.

## ENTRANCE REQUIREMENTS

### COLLEGE COURSE

The admission to this course is conditional upon the limitations of available space. For many years past, the College has not been able to accommodate all who have applied for admission. For the session of 1928-1929, we shall have accommodations for only 275 new candidates for the degree of Ph.G.

The requirements for admission to the College Course are the same as those of the New York State Department of Education for the Qualifying Certificate, under the limitations set forth above.

### THE UNIVERSITY COURSES

These are courses of full academic years (September to June) leading to graduation with the other departments of the University, and to the degree of Pharmaceutical Chemist, conferred by the University, at the end of the third year, and to that of Bachelor of Science in Pharmacy at the end of the fourth. It is to be noted here that for the session of 1928-1929 a limited number of Fourth Year Students can be accommodated.

The requirements for admission to this course are the same as those for Columbia College. The student must be seventeen years of age, must have graduated

from a high school within or outside of the State of New York that is accredited by the Education Department of this State, and must present a pharmacy student qualifying certificate from the Education Department of this State, based on 72 academic counts, equal to 15 Columbia units.

Under this course, two programs are offered, one leading to the degree of Pharmaceutical Chemist, and one to the degree of Bachelor of Science in Pharmacy.

The evidence of adequate preparation for admission to the University Course in the subjects required on the part of candidates who have not completed a year of college work, *includes both examination and school records*, and are the same as those for admission to Columbia College.

The subjects which candidates may offer in fulfilment of these requirements are outlined below. (A "unit" implies the study of a subject for a time equivalent to five hours weekly for one year.)

PREScribed SUBJECTS

All candidates *must* offer:

ENGLISH	{	1 (grammar and composition) . . . . .	2 units
		2 (literature) . . . . .	1 unit
		<i>ai</i> (algebra to quadratics) . . . . .	1 unit
MATHEMATICS	{	<i>aii</i> (quadratics and beyond) . . . . .	1 unit
		<i>c</i> (plane geometry) . . . . .	1 unit

EITHER

(1) Latin . . . . . 4 units

OR

(2) { Latin, Greek, French, German, Spanish or Italian . . . . . 3 }  
 { Physics or Chemistry . . . . . 1 } 5 units  
 { History . . . . . 1 }

ELECTIVE SUBJECTS, to make up 15 units . . . . . 4 or 5 units

<sup>1</sup> Greek, 3 units, may be substituted for Latin, in which case 6 elective units must be offered.

ELECTIVE SUBJECTS

*Group I*

The candidate may offer any of the following subjects not included among his prescribed subjects, without other restriction than that to offer an advanced subject will involve offering, either at the same time or earlier, the corresponding elementary subject.

Biology—See Zoology	
The English Bible . . . . .	1 unit
Elementary Greek . . . . .	2 or 3 units
Elementary History . . . . .	1 or 2 units
Drawing (Freehand or Mechanical) . . . . .	1 unit
Music . . . . .	1 unit
Intermediate French . . . . .	1 unit
Intermediate German . . . . .	1 unit
Intermediate Italian . . . . .	1 unit
Intermediate Spanish . . . . .	1 unit

Advanced French . . . . .	1 unit
Advanced German . . . . .	1 unit
Social Science . . . . .	1 unit
Advanced Spanish . . . . .	1 unit
Advanced Mathematics (College) . . . . .	$\frac{1}{2}$ , 1 or $1\frac{1}{2}$ units
and in the case of candidates not offering 4 units in Latin:	
Elementary Latin . . . . .	2 or 3 units

*Group II*

The candidate may offer not more than 4 units in all from the four subjects following:

Elementary French . . . . .	2 units
Elementary German . . . . .	2 units
Elementary Italian . . . . .	2 units
Elementary Spanish . . . . .	2 units

*Group III*

The candidate may offer not more than 3 units in all from the six subjects following:

Botany . . . . .	1 unit
Chemistry . . . . .	1 unit
Physics . . . . .	1 unit
Physiography . . . . .	1 unit
Shopwork . . . . .	1 unit
Zoology . . . . .	1 unit

## NEW METHOD

Under the "New Method," candidates whose school and character records are entirely satisfactory, may meet the examination requirements by means of a psychological test. The school course must include three units in English, three in Mathematics (elementary and intermediate algebra and plane geometry), and at least three units in a foreign language, ancient or modern. It must have been concerned primarily with Languages, Science, Mathematics and History.

## OLD METHOD

Under the "Old Method," the examination requirements for admission may be satisfied by any one of the three following means, or any approved combination thereof.

1. By the examinations of the College Entrance Board, held in June of each year at Columbia University and at about 150 other educational centers in the United States and abroad.

2. By the examinations conducted at Columbia University in September of each year, by the Director of University Admissions.

(The examination grades in connection with the above two methods are interpreted in the light of the record which students have made in school.)

3. By the examinations given in the high schools by the Education Department of the State of New York to students who have satisfactorily completed

certain courses in these high schools. In these examinations, seventy-five per cent will ordinarily be regarded as the lowest passing mark.

For candidates qualifying for admission on the basis of examinations before Columbia University or the College Entrance Board, two methods are open:

*a. Examination in fifteen units.* A candidate may offer examinations in fifteen units as evidence of his preparation in secondary school subjects.

*b. Four examination plan.* A candidate who has completed a satisfactory secondary school course with a high degree of proficiency may, by special permission, satisfy the examination requirement by means of "comprehensive examinations" in not less than four subjects including those prescribed for admission.

Candidates entering by the old method are required to take the psychological examination for purposes of record only.

Those contemplating the September, 1928 examinations, must file their applications with the Secretary of Columbia University on or before September 10, 1928. Those who contemplate taking the June, 1929 examinations, must file their applications with the Secretary of the College Entrance Board at 431 West 117th Street, New York, N. Y., on or before May 27, 1929, for points on or east of Mississippi River; May 20, 1929, for points West of Mississippi River; May 6, 1929, for points outside U. S. or Canada. Blank forms of application for either series of examinations may be secured from the respective secretaries.

Every candidate for admission to the University Course should secure a copy of the current *Bulletin on Entrance Examinations and Admission* which may be had upon application to the Secretary of the University.

#### ADMISSION TO ADVANCED STANDING

Candidates may be admitted to advanced standing only upon a satisfactory record from their school of previous residence. Provided they are eligible for the Pharmacy Student Qualifying Certificate required by the New York State Department of Education, candidates who have completed, without condition, corresponding courses in a Pharmacy School registered by the State Education Department, are eligible for admission to the second, third or fourth years, respectively.

#### FEEES

The fees to be paid by students are subject to change at any time in the discretion of the Trustees. The following schedule is in force for the 1928-1929 session for students accepted in any of the regular courses leading to degrees.

Regular Courses	College Courses		University Courses	
	1st, 2nd and 3rd Years	1st, 2nd and 3rd Years	4th Year	
Registration	\$5.00	\$5.00	\$5.00	
Breakage Deposit	10.00	10.00	10.00	
Student Activities	10.00	10.00	not required	
Examination	10.00	10.00	15.00	
Tuition	250.00	300.00	300.00	

*Special Courses.* Students desiring to pursue individual courses as special students will be required to pay at the rate of \$7.50 per point.

*Summer Courses.* The fee for any laboratory course is \$25. for first-, second- and third-year work in the College Course. In the University Course, the fee is \$25. for first- and second-year work and \$50. for third- and fourth-year work.

The fees for quiz courses are computed on the basis of \$15.00 for a two-hour subject and \$7.50 for a one-hour subject.

*Evening Courses.* The fees for the various evening courses will be found among the descriptions of these courses, beginning on page 44.

*Books and Supplies.* It is estimated that an expenditure of \$50. will cover the cost of the textbooks and necessary apparatus required for the entire College Course, and of \$75. for the entire University Course for the Ph.Ch. degree. The heaviest expenditure in all cases will be in the first year; many of the required reference works being used also in subsequent years.

#### METHODS OF PAYMENT

##### *Regular Courses*

One of three methods for the payment of the tuition fee for the year may be elected by the candidate, as indicated below. In this connection, it is to be noted that all are required to pay the registration fee, the breakage deposit, the student activities fee and the first installment of the tuition fee at the time of registration. The dates for registration in the various classes will be found in the academic calendar on page 73.

A. Pay in full at the time of registration.

B. Pay one-half of the tuition fee at the time of registration, and the balance on or before January 3, 1929. Under this arrangement, an additional \$3. must be added to the first installment.

C. Pay one-third of the tuition fee at the time of registration; one-third on or before December 3, 1928, and the balance on or before February 11, 1929. Under this arrangement, an additional \$5.00 must be added to the first installment.

A student, electing Plan B or C makes himself liable to suspension from further attendance if he fails to meet the payments when due.

Second-, third- and fourth-year students, who register after the last day set for their registration (see Academic Calendar) are required to pay an additional fee of \$5.00 for late registration.

*Examination Fees.* Dates upon which fees for examination in course are required will be found in the Academic Calendar.

The rate for re-examination is on the basis of \$5.00 for each subject in September and \$10. for the entire series in the spring.

*Rebates.* The registration and student activities fees shall not be subject to rebate.

In the case of the total withdrawal of a student from the College, a partial return of the tuition fee may be authorized by the Trustees, but in no case shall more than two-thirds of the total charge for that year be returned.

*Special, Summer and Evening Courses.* Students registering in any of these courses are required to pay the tuition and other fees *in advance*.

## METHOD OF INSTRUCTION

The instruction of each class during the first and second years of the College Courses occupies three days of the week, the alternate days being free for practical experience in the pharmacy. This arrangement provides a source of income, which is a necessity for many of the students of the College. During the third year, an additional half-day must be devoted to work in the pharmacy laboratory. All students who can do so are urged to devote their third year wholly to College work.

For the purpose of more fully elucidating the subjects presented in the lectures and laboratories and of familiarizing the students therewith, and as a test of attention and progress, provision is made for a complete series of recitations or quizzes by a corps of qualified instructors. The order of topics and the manner of their treatment at these recitations follow closely the courses of instruction given by the professors in the respective departments. In order that all the members of the class may be drilled as often and as thoroughly as possible, the classes are divided into sections, the instruction of each section being identical, but conducted at different hours.

## REGULATIONS OF THE BOARD OF TRUSTEES

The rules and regulations stated in this Announcement and those posted on the Bulletin Boards, signed by the Chairman of an authorized committee, or by the Dean, will govern all students of this College until a new Announcement is issued.

## AUTHORITY OF THE DEAN

The Dean is the executive officer of the Faculty. It is his duty, under the direction of the President, to enforce the rules of the Faculty and of the Board of Trustees and to administer discipline in the case of their violation.

## REQUIREMENTS FOR ALL REGULAR STUDENTS

*Attendance*

Students are particularly requested to be in attendance at the commencement of the course, in order to obtain full benefit from the lectures. No student will be admitted more than two weeks after the opening of the term, and no member of the third- and fourth-year classes will be admitted later than one week after the opening, except by special permission of the Faculty.

Every student must attend during ninety per cent of the hours of instruction in each year, and during eighty per cent of those of each exercise. The lectures and recitations in a subject constitute one "exercise." For being late twice at daily opening the student will be charged with one absence. For failure to comply with this condition, the student will forfeit the privilege of presenting himself for examination.

Computation of attendance records will be based upon the total number of hours assigned a given course (page 16) during the academic year.

*Advancement in Classes*

Advancement from one class to the next requires that the student successfully pass an examination in all the subjects taught during the preceding year, the passing mark being seventy-five per cent, although the Faculty may admit a student to the next class conditioned in a single subject. It is to be particularly noted that in deciding upon the qualifications of candidates, their term's work and their character as students will be given due consideration.

Those students who fail to pass these examinations—but *not those* who have failed, without excuse, to present themselves thereat—will be allowed to undergo a single supplementary examination to be held as announced on page 73, provided, however, that they did not fail in a majority of their subjects. Students failing in a majority of their subjects will be required to repeat their entire course, provided, however, that such students may be refused re-matriculation if, in the judgment of the faculty, they are not qualified to be students of this College. A student who fails in a laboratory course must repeat such course successfully before being advanced to the higher class. This work must be done during the summer, except in special cases.

As an aid to those students who are required to take a supplementary examination, summer quiz courses are held as per schedule on page 42. By a regulation of the State Education Department, students failing in more than one subject must make good the deficiency at the school where they so failed. Applicants for the supplementary examination must notify the Registrar on or before September 1, 1928.

Candidates for admission to advanced standing must either pass examinations in all the subjects of the preceding year or must produce evidence of having passed successfully examinations equal thereto.

## REQUIREMENTS FOR GRADUATION

Every person upon whom a degree is conferred by the College or the University must be of good moral character, and must have complied with all requirements for graduation.

Those who fail to appear for examination (after having handed in their names with the examination fee), or who do not pass satisfactorily, will be allowed to present themselves at the following spring examinations on paying an additional fee of \$10 and complying with all other requirements.

Any student who shall have failed three times in three or more subjects at the final examinations for graduation, shall be required to repeat the entire work of the final year before being again admitted to examination. Any student failing three times in one or two subjects, shall be required to repeat the entire work of the final year in such subject or subjects before being again admitted to examination. Should the student again fail at the final examination and at the following supplementary examination, he will not be permitted to continue as a student, or to be examined again.

All students must obtain a rating of seventy-five per cent or higher in every department in which they may be examined. Any student failing in one or more departments, but not in laboratory courses, may present himself for



re-examination therein at the supplementary examination held in September, or at the next regular spring examination. If successful, he will be graduated without re-examination in the other departments. Failure in a laboratory course will necessitate the repeating of that course, which repetition must occur during the summer vacation, except in special cases. See schedule on page 42.

Students of the Third Year University Class failing in a laboratory course of a single department may be permitted to remove this failure during the Summer Laboratory Session. Students of this class failing in the laboratory courses of more than one department will be required to repeat in full those courses in which they fail, during the next regular session.

### PRIZES AND SCHOLARSHIPS

The College reserves the right to withhold the award of any scholarship or prize, if in its opinion, no candidate has exhibited qualifications justifying the award.

**HONOR ROLL.** The College Classes and the University Classes shall have separate and distinct honor rolls. Those securing an average of 90 per cent or over in the year's work, shall constitute the honor rolls of their respective classes.

**'TRUSTEES' PRIZES.** The Board of Trustees offers annually, to be presented at Commencement, three prizes of \$100. each, for the highest rating secured in competitive examination in the three departments of Chemistry, Pharmacy and Materia Medica. These competitive examinations are open to those members of the graduating class who have attained positions on the honor roll of the *College Course*. (If the number of these honor students be less than thirteen, a sufficient number of graduates having the next highest averages to make that number shall be permitted to compete for these prizes). A certificate, stating the honor for which the prize has been awarded, is also presented to each of the recipients.

**ALUMNI ASSOCIATION PRIZES.** The Alumni Association of the College of Pharmacy offers annually a gold, a silver and a bronze medal to be presented at Commencement to the three students having respectively attained the first, second and third highest standings in all branches taught during the third year of the *College Course*.<sup>1</sup>

Five additional prizes are awarded annually by the Association on "Alumni Day" to members of the first- and second-year classes of the *College Course*, as follows: *Torsion Balance*, awarded to that second-year student who has secured the highest standing during the work of the two years; a copy of "*The United States Dispensatory*" to that student who has secured the highest standing during the work of the second year; a copy of Culbreth's "*Materia Medica*" awarded to that student securing the second highest standing in the work of the second year; a copy of Army's "*Principles of Pharmacy*" to that student who has secured the highest standing in the work of the first year, and a copy of Sadtler, Coblentz & Hostmann's "*Pharmaceutical Chemistry*" to that student who has secured the second highest standing in the work of the first year.

<sup>1</sup>Not to be awarded in 1929.

In the event that the winner of the Torsion Balance has the highest record for the second year, then the U. S. Dispensatory and Culbreth's *Materia Medica* shall be awarded respectively to the second and third member of the honor roll.

*Note:* The award of the Torsion Balance will be omitted for the year 1929.

**MAX J. BREITENBACH PRIZE.** A cash prize of \$200, accompanied by a certificate, offered annually for the highest proficiency in the Junior (third year) University Class. This prize is provided for in perpetuity from the interest of funds bequeathed to the College by the late Max J. Breitenbach for many years a devoted trustee.

**KAPPA PSI PRIZE.** The Gamma Chapter of the Kappa Psi Fraternity offers annually a gold medal to be awarded to that Pharmaceutical Chemist not receiving either the Breitenbach prize or the Seabury Scholarship who attains the highest standing throughout the three years of the course.

**LILLIAN LEITERMAN PRIZE.** A gold medal, offered annually by Miss Lillian Leiterman (1911), to that woman member of the graduating class who has maintained the highest standing throughout the entire three years of the *College Course*.

**J. LEON LASCOFF PRIZES.** Life membership in the American Pharmaceutical Association and in a State Pharmaceutical Association, offered annually by Trustee J. Leon Lascoff to the two members of the graduating class in the *College Course* who have been prominent in student activities, who have maintained a high degree of general scholarship, and who are adjudged by the Faculty to be worthy of such awards.

**TRUSTEES' SCHOLARSHIPS.** To the four students who maintain the highest proficiency in their respective classes during the first and second years of the College and University Courses, the Board of Trustees of the College annually award scholarships for one year's tuition, to be applied to the session following of their respective courses.

**GEORGE J. SEABURY SCHOLARSHIP.** This scholarship has been founded by Dr. Henry C. Lovis, in memory of his uncle, Mr. George J. Seabury, for many years a member and patron of the College. It provides for the tuition, during the Senior (fourth) year of the University course, of that member of this class who has maintained the highest standing during the three years, provided, however, that such student is eligible for the degree of B.S. in Phar., and shall not receive both this scholarship and the Max J. Breitenbach prize.

**ISAAC PLAUT FELLOWSHIP.** This Fellowship for the encouragement of graduate study and original research was founded by Mr. Albert Plaut, in memory of his father, Isaac Plaut.

Candidates for this Fellowship must have secured the degree of B.S. in Pharmacy at this school, and must also possess credit for a year's study of a foreign language, equivalent to that of the first year at Columbia College.

It provides for a year of study at a European school or university by that Bachelor of Science in Pharmacy of this College who shall have shown during his full course of study here the greatest taste and aptitude for original investigation. Should no member of a class be deemed worthy of the award, it will be withheld.

<sup>1</sup>Not to be awarded in 1929.

The Fellow shall be appointed by the Council of the University upon the nomination of the Trustees of the College of Pharmacy. He shall attend a foreign institution to be selected by himself and approved by the Faculty of the College of Pharmacy, and shall pursue a course of study approved by the Faculty. At the close of his incumbency he shall present to the Faculty a written report of his work.

The Fellowship payment shall be made in three equal installments, one on June 15, one on November 1, and one on March 1, provided that the Fellow continues faithfully to pursue the work undertaken. In case of failure so to do, he shall forfeit all further privileges and emoluments conferred upon him by his appointment to the Fellowship, and the Trustees of the College of Pharmacy may declare the Fellowship vacant.

N.B.—Competition for the Kappa Psi Prize, the Seabury Scholarship and the Plaut Fellowship is open only to those students who take their entire course at this College.

Since its foundation, the following Plaut Fellows have continued their studies towards the degree of Ph.D.

Moritz A. Dittmar, B.S., 1920, Ph.D., University of Bern, Switzerland, 1922. Assistant Superintendent of the laboratories of Lehn and Fink.

Herbert C. Kassner, B.S., 1921, Ph.D., University of London, England, 1923. Associate Professor of Chemistry, Columbia University, College of Pharmacy.

Helen A. Timmermann, B.S., 1925, Ph.D., University of London, England, 1927. Instructor in Materia Medica, Columbia University, College of Pharmacy.

Fred Levine, B.S., 1927, Samuel Goldberg, B.S., 1928, graduate students at the University of London, England.

**LOUIS SPENCER LEVY RESEARCH SCHOLARSHIP.** This scholarship has been provided by Mr. Louis Spencer Levy for a period of two years, beginning with the session of 1928–1929. It affords free tuition to that B.S. or Ph.Ch. who is deemed qualified by the Faculty to do research work and who will devote the greater portion of his time to investigations of the effect and usefulness of ultra-violet radiations in the field of essential oils and perfume materials, this work to be done under the direction of the head of the Department of Pharmacy.

**E. R. SQUIBB PRIZE.** This is an annual cash prize of \$100., offered by Messrs. E. R. Squibb & Sons, in memory of Dr. E. R. Squibb. It is awarded to that Graduate in Pharmacy who exhibits the greatest proficiency in Analytical Chemistry during his third year, as determined by the laboratory records.

**LOUIS DOHME PRIZE.** This is an annual cash prize of \$100., founded by Mr. Ernest Stauffen, in memory of Mr. Louis Dohme. It is awarded to that Graduate in Pharmacy who exhibits the best practical knowledge of the drugs of the United States Pharmacopœia and National Formulary, as determined by the laboratory records and examinations.

**JOSEPH WEINSTEIN PRIZE.** This prize consists of a compound microscope and is established by the New York Retail Druggists' Association, in memory of Dr. Joseph Weinstein. It is awarded to that Graduate in Pharmacy who has exhibited

<sup>1</sup>Not to be awarded in 1929.

the greatest proficiency in Analytical Chemistry during the three years, as determined by the laboratory records, and who has not secured any other prize.

<sup>1</sup>ITALIAN PHARMACEUTICAL ASSOCIATION PRIZE. This Association offers annually a gold medal to that Graduate in Pharmacy who has obtained the highest general average in practical laboratory work during the third year.

<sup>1</sup>LEHN and FINK PRIZE. This prize consists of a gold medal, offered by Messrs. Lehn and Fink, of New York City, for the Graduate in Pharmacy attaining the highest standing at the examinations in Pharmacy.

<sup>1</sup>WESTCHESTER COUNTY PHARMACEUTICAL ASSOCIATION PRIZE. This Association offers annually a gold medal to that member of the graduating class of the *College Course* who has attained the highest general average in practical laboratory work, during the three years in the Department of Pharmacy.

<sup>1</sup>GERMAN APOTHECARY'S ASSOCIATION PRIZE. In commemoration of its foundation in the year 1851, the German Apothecary's Association offers, annually, a gold medal to be awarded to that member of the graduating class who has exhibited during the final year of the *College Course* the greatest proficiency in the compounding of prescriptions.

<sup>1</sup>OLSHANSKY MEMORIAL MEDAL. This is a gold medal, founded by the students of this school in attendance upon the session of 1923-1924, in memory of their beloved instructor, Jacob Calman Olshansky, whose death occurred during that academic year. This medal is to be awarded annually to that student who has attained the highest average in the final year of the *College Course* in the subject of Dispensing Pharmacy.

<sup>1</sup>Not to be awarded in 1929.

## SYNOPSIS OF STUDIES FOR THE SESSION OF 1928-1929

(For information regarding subsequent years, see p. 76)

## COLLEGE COURSE

*First Year*

		Class Hours	Laboratory Hours	Points
MM 1-2	Botany	2	0	4
MM 3-4	Botany	1	4	6
MM 5-6	Posology	1	0	2
Chm. 1-2	General Physics	2	0	4
Chm. 3-4	Inorganic Chemistry	3 <del>X</del>	0	7 6
Chm. 5-6	Analytical Chemistry	1 <del>X</del>	3	4
Phr. 1-2	Theory of Pharmacy	3	0	6
Phr. 3	Practical Pharmacy	1	3	2½ - 1st S
Phr. 8	Dispensing Pharmacy	1	3	2½ 2nd S
			24 hrs	

*Second Year*

MM 53-54	Pharmacognosy	0	3	3
MM 57-58	Human Physiology and Hygiene	2	0	4
MM 59-60	Biology of Micro-Organisms	1	1	3
Chm. 51-52	General Physics	1	0	2
Chm. 55-56	Inorganic Chemistry	3	0	6-
Chm. 59-60	Analytical Chemistry	0	3	3-
Phr. 51-52	Theory of Pharmacy	3	0	6
Phr. 53	Practical Pharmacy	1	3	2½ 1st sec
Phr. 56	Dispensing Pharmacy	1	3	2½ 2nd A
Phr. 59-60	Pharmaceutical Jurisprudence and Commercial Pharmacy	1 <del>X</del>	2 <del>X</del> 2	4 <del>X</del> See p
			24 hrs	

## UNIVERSITY COURSE

*First Year*

MM 1-2	Botany	2	0	4
MM 7-8	Posology	½	0	1
MM 9-10	Plant Morphology and Histology	1	4½	6½
Chm. 1-2	General Physics	2	0	4
Chm. 3-4	Inorganic Chemistry	3 <del>X</del>	0	7 6
Chm. 7-8	Analytical Chemistry	1 <del>X</del>	3	4
Phr. 1-2	Theory of Pharmacy	3	0	6
Phr. 5	Practical Pharmacy	1	5	3½ 1st h
Phr. 10	Dispensing Pharmacy	1	5	3½ 2nd h
Coll. 1-2	English	3	0	6
Coll. 3-4	American Government	3	0	6

## Second Year

		Class Hours	Laboratory Hours	Points
MM 55-56	Macroscopic Pharmacognosy	0	2	2
MM 57-58	Human Physiology and Hygiene	2	0	4
MM 61-62	Bacteriology	1	2	4
Chm. 51-52	General Physics	1	0	<u>2</u>
Chm. 54	Practical Physics	0	4	2
Chm. 55-56	Inorganic Chemistry	3	0	6
Chm. 57-58	Analytical Chemistry	0	3	3
Phr. 51-52	Theory of Pharmacy	3	0	6
Phr. 53	Practical Pharmacy	1	3	2½
Phr. 58	Dispensing Pharmacy	1	7	4½
Phr. 59-60	Pharmaceutical Jurisprudence and Commercial Pharmacy	1½	2 ½	4½
Coll. 51-52	German	5	0	10

## Third Year

MM 105-106	Bacteriology	1	2	4
MM 107-108	Morphology and Taxonomy of Crypto- gams	1	2	4
Chm. 101-102	Theories of Chemistry	1	0	2
Chm. 103-104	Organic Chemistry	3	0	6
Chm. 105-106	Analytical Chemistry	0	10	10
Phr. 109-110	Advanced Pharmacy	2	0	4
Phr. 111-112	Dispensing Pharmacy L 4 B	0	5	5
Phr. 113-114	Practical Dispensing Pharmacy	0	2	2

## Fourth Year

* MM 151-152	Applied Pharmacognosy	¾	5	6½
* MM 153-154	Botanical Taxonomy	0	1½	1½
MM 155-156	Human Physiology	1	0	2
Chm. 151-152	Inorganic Quantitative Analysis	1	8	10
Chm. 153-154	Food Analysis and Toxicology	1	8	10
Chm. 155-156	Biological Chemistry	1	0	2
Chm. 157-158	Chemical Bibliography	1	0	2
Phr. 151-152	Advanced Pharmacy	1½	0	3 ½
* Phr. 153-154	Pharmaceutical Assaying	0	7	7

hours have been assigned only one number as  
courses were of 8 weeks duration only

# COURSES OF INSTRUCTION

## MATERIA MEDICA

**Materia Medica 1-2—Botany** (for University Freshmen and first year College Students). Lectures and recitations 2 hours, 4 points. Professors RUSBY, HART and TAUB and instructors.

The object of this course is to prepare the student for an understanding of that part of Materia Medica which relates to vegetable drugs. In the limited time allotted to this study, it is impossible to pursue it in all its departments, and attention is concentrated upon such instruction as will fit the student for professional work in pharmacy. The instruction embraces the morphology of the higher plants, from which nearly all of our vegetable drugs are derived, the terms used in official description, systems of classification, botanical nomenclature, and the relations of the lower to the higher plants.

The lectures are illustrated by large colored charts, and each student is furnished with cards bearing mounted specimens.

For the use of the instructor in the Quiz Room, the Alumni Association has provided an elaborate series of *papier-mache* models arranged to illustrate structure and dissection.

Textbook: Rusby, *Manual of Botany*.

**Materia Medica 3-4—Botany Laboratory** (first year College Students). Lectures and recitations 1 hour, laboratory 4 hours, 6 points. Professors BALLARD, HART and TAUB and instructors.

*Gross Botany*.—Pharmacognosy, while itself not a science, may be regarded as the art of applying scientific knowledge to the examination of drugs. The theoretical and practical training of the lecture and recitation room is designed to fit the student for such botanical observations as can ordinarily be made with the naked eye.

To enable him to extend these observations by the use of the simple or dissecting and the compound microscope, in preparation for the study of Pharmacognosy in the following year, a course of laboratory instruction is provided. This portion of the work is under the direction of Professor Hart, and consists in thoroughly training the students in the use of the simple microscope, and in teaching the structure of all parts of the plant which can be studied with that instrument.

The material for these studies is collected during the summer season, and carefully selected with a view to best illustrating the points brought out in the lecture-room.

*Vegetable Histology*.—As ability to properly use a microscope is the foundation of success in all branches of microscopy, first attention is given to a consideration of the parts of the instrument. The uses of the various types of objectives, oculars, illuminating apparatus and mechanical accessories are explained and demonstrated. The details of sectioning, embedding, staining and mounting specimens are illustrated by demonstrations, and at least part of the work is performed by the student.

The course under the direction of Professor Ballard includes the study of plant tissues and the various types of cell contents. A physiological grouping of the tissues is followed by detailed study of the forms, modifications, locations, functions and differences in chemical constitution of the cellular elements concerned in protection, support, absorption, transportation, synthesis and storage. The organic and inorganic cell contents are classified; details of their synthesis are considered and the more commonly used microchemical tests are demonstrated. This work is followed by a detailed study of the arrangement of cells and disposition of cell contents in the various parts and organs of the plant: Each student prepares a set of specimens for use in the course and is required to follow the lecture explanations by personal observation and drawings illustrating the topics considered at each session.

Textbooks: Ballard, *Elements of Vegetable Histology*; Ballard & Hart, *Laboratory Manual*.

**Materia Medica 5-6—Posology** (for first year College Students). Lectures and recitations 1 hour, 2 points. Professor H. TAUB.

The average dosage of U. S. P. and N. F. drugs is considered with the object of teaching the student to recognize an overdose in actual prescription practice. The course covers the analysis of safe and dangerous prescriptions, approximate equivalents and conversion methods from one system into the other, and dosage of non-official but commonly prescribed synthetic remedies.

**Materia Medica 7—Posology** (for University Freshmen). Lectures and recitations  $\frac{1}{2}$  hour, 1 point. Professor H. TAUB.

The relationship in dosage of chemically similar substances and botanically related drugs is considered during the first portion of the course; the material of the College course is given in brief in the latter half.

**Materia Medica 9-10—Plant Morphology and Histology** (for University Freshmen). Lectures 1 hour, laboratory  $4\frac{1}{2}$  hours,  $6\frac{1}{2}$  points. Professors BALLARD, HART, TAUB and instructors.

*Morphology.*—The laboratory course in morphology is designed to supplement the lectures in pharmaceutical botany (*MM. 1-2*). It affords practical training in simple plant dissection, both with and without the dissecting microscope, thereby illustrating the topics considered in the above lecture course and fitting students for the advanced studies of pharmacognosy and taxonomy.

*Histology.*—This section of the course includes a detailed study of the various cellular elements considered both as individual tissues and as integral parts of plant organs. This is followed by a systematic review of the derivation of these tissues and organs in the evolution of the higher forms of plant life from the lower. One or more representative orders of the Thallophyta, Bryophyta, Pteridophyta and Spermatophyta will be studied in detail.

Textbooks: Ballard, *Elements of Vegetable Histology*, 2nd Edit.; Ballard and Hart, *Laboratory Manual*; Rusby, *Manual of Botany*; Curtis, *Nature and Development of Plants*.

**Materia Medica 53-54—Pharmacognosy Macroscopic and Microscopic** (second-year College Students). Laboratory 3 hours, 3 points. Professors BALLARD, TAUB and instructors.

*Macroscopic.*—This part of the course comprises laboratory instruction in the classification, identification and description of the vegetable drugs of the U. S. Pharmacopœia and National Formulary. The drugs and medicinal products of vegetable origin are grouped according to the parts of the plant from which they are derived and further classified on the basis of medicinal constituents. Each drug receives separate attention in the laboratory and the following details are considered—titles under which the drug is known; botanical, geographical and commercial sources; official description, definition and prevailing standards; liability to adulteration or substitution; preparation for market and proper means of preservation or storage.

Each student receives a typical specimen of the drug under consideration and must retain the same for future reference. At the completion of the course each student possesses a collection of the official crude drugs as his personal property. Proficiency in the identification of the drugs studied is determined by practical examinations at short intervals during the term. Botany (Courses *MM. 1-2, 3-4* or equivalent) are prerequisite to a proper understanding of the work in this course.

Textbooks: Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*.

*Microscopic.*—The preliminary work of this part of the course will consist of a brief review of the cellular elements and cell contents in the parts of plants used as drugs or foods. In this manner the work in vegetable histology of the first year (Course *MM. 3-4*) is coördinated to the more detailed study of microscopical pharmacognosy. Powders prepared from drugs representing different parts of the plant will be used as material for study. By utilization of the sections prepared in the first year it will be possible, in many instances, for the student to compare the section with the powder and thus observe the disposition of the cellular elements *in situ* and the changes in appearance incidental to powdering. The number of specimens studied is necessarily limited by the amount of time which can be given to the work but the subject matter of the course is so arranged that representative rather than extraordinary types are considered. The student is expected to construct and use analytical keys in the identification of the powdered materials examined. Progress in course is determined by a series of practical examinations at short intervals throughout the year and the student must record his observations by drawings made from his specimens.

Textbooks: Ballard, *Elements of Vegetable Histology*; Ballard & Hart, *Laboratory Manual*.



**Materia Medica 55-56—Macroscopic Pharmacognosy** (for University Sophomores). Laboratory 2 hours, 2 points. Professors BALLARD and TAUB.

This course includes all of the instruction offered in *Macroscopic Pharmacognosy MM. 53-54*, but in addition many non-official articles of commercial and technical importance are studied. Experience in manufacturing fields has shown that these non-official drugs and drug materials are in frequent use and familiarity with them is especially important in view of their non-inclusion in the Pharmacopœia and National Formulary.

Textbooks: Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*; Youngken, *Pharmacognosy*.

**Materia Medica 57-58—Human Physiology and Hygiene** (for University Sophomores and second-year College Students). Lectures and recitations 2 hours each, 4 points. Professor RUSBY and instructors.

In addition to the skill in Pharmacognosy required for the selection of drugs, the educated pharmacist is required to possess some general information concerning the properties and uses of the materials which he is engaged in handling and dispensing; that is, of the general classification of medicines. As such classification depends directly upon their physiological properties, a limited and specialized course of instruction in Human Physiology is provided.

The method consists in so arranging the order of subjects that the student shall be led from the very first lesson to see the manner in which disordered bodily functions may be restored to a healthy condition by the action of medicines, and leads to the immediate classification of the more important remedies, in connection with the study of the organs or systems to the functions of which they apply. While this method gives an accurate knowledge of the facts involved, it permits of the exclusion of a large portion of the subject of Physiology, and reduces to a minimum the amount of time expended in acquiring such a knowledge of this department of Materia Medica as is properly required of the practicing pharmacist.

Textbook: Bachman and Bliss, *Essentials of Physiology*.

**Materia Medica 59-60—Biology of Microorganisms** (second-year College Students). Lectures and recitations 1 hour, laboratory 1 hour, 3 points. Professor HART and instructors.

This subject constitutes an introduction to the nature, behavior and effects of micro-organisms, especially of bacteria. Without entering upon the subject of practical laboratory bacteriology, as is done in the University course, it discusses the life history of bacteria, and the part that they play in fermentation and decomposition, as well as in disease, and indicates the general nature of the means employed in combatting them, and treats of biological products. The subject of sterilization, as employed in the pharmacy, and the principles of antiseptics and immunization are studied.

**Materia Medica 61-62** (this course, pertaining to the Sophomore University year in 1928-29 and thereafter, is the same as *MM. 105-106*, which see).

**Materia Medica 105-106—Bacteriology.** (for University Juniors 1928-29). Lectures 1 hour, laboratory 2 hours, 4 points. Professor HART and instructors.

The Bacteriological Laboratory in our new building has been fully equipped, and practical work in this important field is taken up. The general principles of the science are taught, and the students cultivate, stain, and study the more important microorganisms. Laboratory methods in the bacterial examination of water, air, milk, ice, sputum and excreta are given, and methods of disinfection and sterilization are practically demonstrated.

Park and Williams, *Pathogenic Microorganisms*.

**MM. 107-108—Morphology and Taxonomy of Cryptogams** (for University Juniors). Lectures 1 hour, laboratory 2 hours, 4 points. Professors BALLARD and HART and instructors.

This course comprises lectures, recitations and laboratory exercises in the morphology, phylogeny and taxonomy of the Thallophyta, Bryophyta and Pteridophyta. One or more representatives of the different orders of each class and subclass will be studied in detail.

Textbooks: Curtis, *Nature and Development of Plants*; Ballard, *Laboratory Manual*.

**Materia Medica 151-152—Applied Pharmacognosy** (for University Seniors). Lecture  $\frac{3}{4}$  hour. Laboratory 5 hours,  $6\frac{1}{2}$  points. Professors BALLARD and HART.

The object of this course is instruction in the methods of applying the principles of microscopy to practical problems apt to be encountered in the average commercial laboratory. The introductory work will consist of a consideration of the general methods employed in microanalysis and the uses of the more common accessories, including polarizing apparatus, measuring apparatus, counting chambers, dark field and vertical illumination. Each student is required to prepare sections of the various types of vegetable materials, using these sections for the demonstration of staining procedures and microchemical reactions. This will be followed by practical and individual work in the qualitative determination of typical drugs and mixtures to which microanalytical methods are applicable. During this work, it is expected that the student will avail himself of the library facilities of the School and freely use the economic drug and food collections of the laboratory for reference and comparison purposes. The aim is to duplicate actual commercial laboratory conditions and to train the worker to depend upon himself. The materials used for teaching purposes will, as far as possible, be commercial products which have been analyzed by microscopical methods.

References: Winton, *Microscopy of Vegetable Foods*; Youngken, *Pharmacognosy*.

**Materia Medica 153-154—Botanical Taxonomy** (for University Seniors). Laboratory course  $1\frac{1}{2}$  hours,  $1\frac{1}{2}$  points. Professor RUSBY.

A good working knowledge of the terms used in descriptive botany, such as can be gained by a study of Rusby, *Manual of Botany*, will be found a sufficient preparation for this course.

The object of this course is to present a general idea of the system of flowering plants, and of their classification and determination by the use of descriptive works. The work consists of the laboratory study of types of the principal families, especially those rich in medicinal and poisonous species.

Textbook: Rusby, *Manual of Botany*.

References: Bentham and Hooker, *Genera Plantarum*; Engler and Prantl, *Pflanzenfamilien*.

**Materia Medica 155-156—Human Physiology** (for University Seniors). Textbook and Conferences 1 hour, 2 points. Miss HOPPING. (Given at the College of Physicians and Surgeons.)

This course consists of a series of discussions, based on assigned reading, occupying 1 hour weekly throughout the term.

Textbook: Howell, *Physiology*.

#### CHEMISTRY

**Chemistry 1-2—General Physics** (for University Freshmen and first-year College Students). Lectures and recitations 2 hours, 4 points. Professor A. TAUB and instructors.

This course is so arranged as to emphasize those phases which have a direct bearing upon chemistry and pharmacy. After a consideration of the general properties of matter and the elements of mechanics a number of lectures are devoted to the discussion of the kinetic molecular theory and to wave motion. This is then followed by the consideration of chapters on sound, heat and magnetism.

The lectures are abundantly illustrated with experiments, the College possessing a fine set of physical apparatus.

Textbook: Stewart, *College Physics*.

**Chemistry 3-4—General Inorganic Chemistry** (for University Freshmen and first-year College Students). Lectures and recitations  $3\frac{1}{2}$  hours, 7 points. Professors ARMY and A. TAUB and instructors.

This course, the beginning of consecutive instruction in chemistry covering three years, is given to the first-year students of both the College and the University Classes. It opens with a careful

consideration of the fundamental principles of chemistry, special attention being given to the modern theories concerning valence, chemical equilibrium, oxidation and reduction and atomic structure.

Exercises in writing and calculating chemical equations and work on problems in chemical arithmetic are given in special quiz periods devoted exclusively to these important subjects.

On the side of descriptive chemistry, the non-metals and their compounds are discussed from their cultural, technical and pharmaceutical viewpoints.

Textbooks: Deming, *General Chemistry*, second edition; *U. S. Pharmacopœia*.

**Chemistry 5-6—Analytical Chemistry.** (for first-year College Students). Laboratory and recitations  $3\frac{1}{2}$  hours, 4 points. Professors SCHAEFER and MACSATA and instructors.

The course in analytical chemistry consists of laboratory instruction and is attended by the class in sections. Each student is provided with the necessary equipment, and is required to perform all the operations involved in qualitative chemical analysis. The uses of apparatus, the actions of reagents, and the proper manner of bringing about chemical reactions are illustrated and explained. On account of the fundamental importance to the true understanding of the subject the simple laws governing chemical action in solution and the formation of precipitates, the nature of solution, etc., are explained to the student. At first, and under the guidance of the teacher, the characteristic reactions of the basic components are studied in solution, or in the solid at a high temperature. The phenomena observed are interpreted and discussed, and the conclusions recorded. Later, the reactions are represented by equations. The value of grouping is utilized and separations and identifications of group members are performed. Finally, all facts acquired by direct observation are brought together in the systematic procedure for analysis of mixtures. In this recapitulation, individual effort is stimulated by independent work on unknown samples.

Textbook: Schaefer & Bliss, *Qualitative Chemical Analysis*.

**Chemistry 7-8—Analytical Chemistry** (for University Freshmen). Laboratory and recitations,  $3\frac{1}{2}$  hours, 4 points. Professor KASSNER and instructors.

The student will first be made familiar with laboratory processes by means of a course of experiments in general chemistry—isolation of elements, preparation of pure compounds by means of precipitation, crystallization, etc. and examination of their properties. Simple laws and phenomena will be explained to the student in the course of this work. In this way, experience in manipulation, and a true understanding of the subject will be obtained.

This preliminary course leads to a systematic course in qualitative analysis but during the first year the reactions of the basic ions only are studied. The student is taught the separation and identification of these, and finally is required to analyze systematically solutions containing two or more basic ions.

**Chemistry 51-52—General Physics** (for University Sophomores and second-year College Students). Lectures and recitations. 1 hour, 2 points. Professor S. SCHAEFER and A. TAUB.

This course is a continuation of *Chemistry 1-2* (General Physics) and embraces the subjects of electricity and light. Special consideration is given to ionization, electrolysis, the electron hypothesis, vacuum tubes, the spectroscope, spectrum analysis, double refraction and the polariscope.

The lectures will be accompanied and made more interesting by many exhibitions and experiments.

Textbook: Stewart, *College Physics*.

**Chemistry 54—Practical Physics** (for University Sophomores). Laboratory course 4 hours, 2 points. Professor A. TAUB and instructors.

The course consists of sixteen half-day periods of four hours each, given during the second half of the year.

This work consists of experiments in fundamental physical measurements followed by special work in heat, light, sound and electricity. The laboratory is equipped not only with apparatus for routine exercises, but has the appliances necessary for work in colorimetry, spectroscopy, refraction, calorimetry and electro-chemistry.

**Chemistry 55-56—Inorganic Chemistry** (for University Sophomores, and second-year College Students). Lectures and recitations 3 hours, 6 points. Professors ARNY and A. TAUB and instructors.

This course, a continuation of *Chemistry 3-4* will be devoted to a consideration of the non-metallic and metallic elements and their compounds. It will open with a discussion of ionization and throughout the course, all of the more important principles of theoretical inorganic chemistry will be discussed. In descriptive chemistry, the course will consider the remaining non-metallic elements and all of the more important metallic elements. These will be discussed from the standpoint of modern industrial chemistry.

Textbook: Sadler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition.

**Chemistry 57-58—Analytical Chemistry** (for University Sophomores). Laboratory course 3 hours, 3 points. Professor KASSNER and instructors.

The course in qualitative analysis begun in the first year is continued through the first half of the second year. The sequence of work is as follows:—(1) the study of the acidic-ions according to an analytical scheme of separation; (2) a systematic method of preliminary testing of unknown compounds; (3) the preparation for analysis of water-insoluble substances; and (4) the complete qualitative analyses of unknown solutions or powders containing two or more compounds.

The second half of the year's work is devoted to a course in volumetric analysis. This begins with the study of general principles and theoretical considerations, the ionization theory of indicators, pH values and the use of the analytical balance. It continues with the preparation of certain volumetric solutions and their uses in quantitative analysis by (1) neutralization (2) precipitation, (3) oxidation and reduction, and (4) iodimetry.

**Chemistry 59-60—Analytical Chemistry** (for second-year College Students). Laboratory course 3 hours, 3 points. Professors SCHAEFER and MACSATA and instructors.

The first half of the second-year course is devoted to completing the instruction in qualitative analysis. The discussion of the simpler fundamental laws governing chemical and physical changes in solution, begun in the first year, are followed to conclusion. The preliminary testing and preparation of a sample for analysis, involving solution in solvents other than water, and the procedure for analysis of substances insoluble in water and acids, are studied and practiced. The greater part of the time is devoted to the study of the acidic components.

During the second half-year instruction in quantitative analysis is then introduced. This training is intended to enable the pharmacist to determine the purity of medicinal chemicals and to find the percentage strength of preparations. Volumetric analysis being simple, rapid and accurate for many medicinal substances, receives special consideration.

Textbooks: *U. S. Pharmacopæia*, Schaefer and Bliss, *Qualitative Chemical Analysis*.

**Chemistry 101-102—Theories of Chemistry** (for University Juniors). Lectures and recitations 1 hour, 2 points. Professor SCHAEFER.

The object of this course is to bring together, to correlate and to elaborate somewhat the various theories presented to the student in the regular chemistry and physics lectures. Consideration is given to the kinetic theory, the gas laws, the laws governing change of state, the quantitative laws of chemical combination, the atomic hypothesis, the laws of valence, the periodic system, radioactivity, atomic disintegration, atomic structure, solubility, ionization, indicators, equilibrium, electrochemistry and colloids.

Special importance is placed upon the practical application of modern theories of physical chemistry to analytical processes and methods.

Textbook: Chapin, *College Chemistry*.

**Chemistry 103-104—Organic Chemistry** (for University Juniors). Lectures and recitations 3 hours, 6 points. Professors ARNY and A. TAUB and instructors.

This course, a continuation of *Chemistry 3-4* and *55-56*, will be devoted to a comprehensive study of the carbon compounds; special care being taken to keep the course abreast the new applications of organic chemistry in pharmacy and medicine. The preparation of the more common

organic chemicals is given careful consideration and advances under modern methods of research are presented to the class as they are reported.

All the official and the more important unofficial organic pharmaceutical chemicals and medicinal products, notably the newer synthetic remedies, are taken up, explained in detail, and classified according to their position in the various organic groups. By this method of classification the subject of organic pharmaceutical chemistry is presented in the same sequence as that of general organic chemistry.

Textbook: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition; *U. S. Pharmacopœia*.

**Chemistry 105-106—Analytical Chemistry and Urine Analysis** (for University Juniors). Laboratory, 10 hours, 10 points. Professor KASSNER and instructors.

This laboratory course is given to the University Juniors in two groups, each group having 14 weeks of instruction.

The first period, comprising 100 hours, will be devoted principally to qualitative work. Students will be supplied with pure and adulterated chemicals. Tests of purity and identity will be performed upon the following: chloroform, phenol, glycerol, methenamine, compound solution of cresol, alcohol, cresol, cresote, acetanilid, chloral hydrate, paraldehyde, formaldehyde, acetphenetidid, salicylic acid, acetylsalicylic acid and such other chemicals which will give the student practice in the "General Tests" of the U. S. P. X.

During the second period of 100 hours, gravimetric and volumetric methods will be studied.

The student will prepare normal acid and alkali solutions. The former will be standardized with barium chloride and sodium carbonate, the latter with potassium bitartrate, etc. The finished solutions will then be run against each other. Following upon this, the student will prepare iodine, potassium permanganate, sodium thiosulphate, etc., volumetric solutions. After standardizing same, he will use them in volumetric assays not covered during the second year. The gasometric assays of ethyl nitrite and amyl nitrite as well as the assay of volatile oils will then be taken up and will extend into the third period of 100 hours which will be principally devoted to the proximate assays of the U.S.P. and of galenicals.

The final period of 30 hours will be devoted to the analysis of urine. In addition to the routine qualitative and quantitative tests, the student will receive instruction in the principles and use of polarimeters and chainomatic Westphal and analytical balances.

Textbook: *U. S. Pharmacopœia*.

Reference Book: Murray, *Standards and Tests for Reagent Chemicals*.

**Chemistry 151-152—Inorganic Quantitative Analysis** (for University Seniors). Lectures 1 hour, laboratory, 8 hours, 10 points. Professor KASSNER and instructors.

The aim of the fourth-year work in Analytical Chemistry is to carry forward the instruction in chemical analysis to such a point that the student may be able to execute the more important chemical and pharmaceutical analyses.

The object of analytical chemistry is twofold, viz.: qualitative and quantitative. During the first year the detection of the component elements of compounds of unknown composition are studied, while the work of the second and third years applies to determination of the relative proportional amounts of the components of the various compounds studied, chiefly by the aid of volumetric methods, leaving the more difficult and complex processes of gravimetric analysis to be taken up in the fourth year.

The work will consist chiefly of gravimetric determinations, but will perforce include the testing, adjusting and calibrating of delicate balances and other apparatus.

Textbook: Clowes and Coleman, *Quantitative Analysis*. Reference book, Scott, *Standard Methods of Chemical Analysis*.

**Chemistry 153-154—Food Analysis and Toxicology** (for University Seniors). Lectures 1 hour, laboratory, 8 hours, 10 points. Professors ARNY and KASSNER and instructor.

In order to give every advantage to the instruction in this department during the fourth year, the College has provided very complete apparatus, which supplies the very best facilities that modern science affords.

The work in this department will cover the following courses:

1. Analysis of various foodstuffs, including milk, butter, flavoring extracts, etc.
2. Chemical and sanitary examination of water.
3. Isolation and detection of organic and inorganic poisons.

In addition to the laboratory work just outlined there will be a lecture course of thirty hours extending through the entire year, describing the various chemical methods of food examination and explaining the principles underlying the more complex physical instruments employed by the students in their laboratory course.

Textbooks: Leach, *Food Analysis*; Autenrieth-Warren, *Detection of Poisons*; Mason, *Examination of Water*.

Reference Book: Allen, *Commercial Analysis*.

**Chemistry 155-156—Biological Chemistry** (for University Seniors). Lectures 1 hour, 2 points. Dr. KARSHAN. Given at College of Physicians and Surgeons.

The instruction in inorganic and organic analysis relates to the examination of substances disconnected from the living body, but the competent analyst must be prepared to consider and act upon a knowledge of the natural changes which substances undergo when absorbed into the living body, as well as the natural products there originating.

**Chemistry 157-158—Chemical and General Bibliography** (for University Seniors). Lectures and conferences, 1 hour, 2 points. Professors ARNY and KASSNER.

This course will consist of lectures on the source books of chemistry, pharmacy, botany and cognate sciences and on the periodical literature on the same subjects. At the conferences, special themes will be assigned to each student for research during spare hours.

#### PHARMACY

**Pharmacy 1-2—Theory of Pharmacy (including Metrology and Pharmaceutical Arithmetic** (for first-year College Students and University Freshmen). Lectures, 2 hours, Recitation 1 hour. 6 points. Professors WIMMER, BROWN and instructors.

This course introduces the student to the fundamentals of pharmaceutical science. It includes a series of lectures on the history of pharmacy, beginning with the Egyptian age and tracing it through the Roman, Arabian and European periods up to the present time. Special stress is laid on the historical development of American pharmacy, its organization and its Code of Ethics.

The course continues with the study of elementary pharmaceutical operations, such as evaporation, distillation, sublimation, solution, crystallization, precipitation, filtration, etc. The lectures are profusely illustrated by exhibitions of apparatus and lantern slides.

The lectures in Pharmaceutical Arithmetic begin with the subject of Metrology and cover every possible kind and type of calculation used in pharmacy.

Textbooks: *U. S. Pharmacopœia X*; Arny's *Principles of Pharmacy*; Sturmer, *Pharmaceutical Arithmetic*.

**Pharmacy 3—Manufacturing Pharmacy Laboratory** (for first-year College Students). Recitation 1 hour, Laboratory course, 3 hours, 16 weeks. 2½ points. Professors WIMMER, BROWN, DORFMAN and instructors.

The work of this course is elementary in nature and affords students the opportunity to apply practically their theoretical knowledge of the different systems of weights and measures, the determination of the specific gravities of various substances, the determination of alcoholic contents of liquids, the purification and granulation of salts and the manufacture of simple galenical preparations.

Textbooks: Diekman and Wimmer, *Manufacturing Pharmacy Laboratory Notes and U. S. Pharmacopœia*.

**Pharmacy 5—Manufacturing Pharmacy Laboratory** (for University Freshmen). Recitation 1 hour, Laboratory course, 5 hours, 16 weeks. 3½ points. Professors WIMMER, CARTER and instructors.

The work of this course is identical with that outlined under course *Pharmacy 3* for the first-year College Class, with an additional two hours of laboratory work. It is the purpose of this course not only to provide the University student with the same work that is done by the College student, but also to give him additional time for the performance of such work as pertains to retail pharmacy, inasmuch as the work of his third year will be essentially devoted to operations pertaining to the manufacture of pharmaceuticals on a large scale.

Textbooks: Diekman and Wimmer, *Manufacturing Pharmacy Laboratory Notes* and *U. S. Pharmacopœia*.

**Pharmacy 8—Dispensing Pharmacy Laboratory** (for first-year College Students). Recitation 1 hour, Laboratory course, 3 hours. 16 weeks. 2½ points. Professors WIMMER, BROWN, DORFMAN and instructors.

This course embraces general methods of compounding pills, troches, bacilli, emulsions, ointments, suppositories and the simpler types of prescriptions. It includes theoretical instruction and training in practical work. The habits of neatness and, above all, of accuracy acquired by the students is of direct and immediate advantage to them in rendering their services more valuable.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*, *U. S. Pharmacopœia* and *National Formulary*.

**Pharmacy 10—Dispensing Pharmacy Laboratory** (for University Freshmen). Recitation 1 hour, Laboratory course 5 hours, 16 weeks. 3½ points. Professors WIMMER, BROWN, CARTER and instructors.

The work of the Dispensing Pharmacy Laboratory course for the Freshman University Class is identical with that outlined under course *Pharmacy 8* for the first-year College Class, with an additional two hours of laboratory work.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*, *U. S. Pharmacopœia* and *National Formulary*.

**Pharmacy 51-52—Theoretical Pharmacy (including Pharmaceutical Latin)** (for second-year College Students and University Sophomores). Lectures, 2 hours, Recitation 1 hour. 6 points. Professors WIMMER, BROWN, DORFMAN and instructors.

During the first semester of this course, one hour weekly is devoted to the general methods of manufacturing liquid, solid and semi-solid pharmaceutical preparations. The general principles involved in the manufacture of fluid extracts, tinctures, syrups, elixirs, masses, pills, etc. are studied in detail. The other hour of lecture is given over to Pharmaceutical Latin, when principles of etymology, construction of sentences and grammar, necessary to an intelligent understanding of Latin used in prescriptions, are studied.

During the second semester, the study of the solid and semi-solid preparations of the United States Pharmacopœia and National Formulary is begun and completed.

Textbooks: *U. S. Pharmacopœia X*; *National Formulary V*; Sturmer, *Pharmaceutical Latin*.

**Pharmacy 53—Manufacturing Pharmacy Laboratory** (for second-year College Students and University Sophomores). Recitation 1 hour, Laboratory course 3 hours, 16 weeks. 2½ points. Professors WIMMER, BROWN, DORFMAN and instructors.

The work in the Manufacturing Pharmacy Laboratory is a continuation of the work of the first year. In general, consideration is here given to calcination, crystallization, solubility determinations, percentage solutions, the manufacture of tinctures, fluid extracts and extracts by percolation, and the preparation of various classes of galenicals, together with the manufacture of the more simple chemicals and chemical preparations.

Textbooks: Diekman and Wimmer, *Manufacturing Pharmacy Laboratory Notes* and *U. S. Pharmacopœia*.

**Pharmacy 56—Dispensing Pharmacy Laboratory** (for second-year College Students). Recitation 1 hour, Laboratory course 3 hours, 16 weeks. 2½ points. Professors WIMMER, BROWN, DORFMAN and instructors.

The work in the Dispensing Pharmacy Laboratory is a continuation of the work of the first year. It deals more especially with prescriptions and includes the compounding and dispensing of the various types requiring technical knowledge and skill. Consideration is given to tablet triturates, mucilages, mixtures, the filling of capsules, cachets, collapsible tubes, etc. General instruction is given in the reading and interpretation of prescriptions, the recognition of the various constituents of their ingredients, together with the proper methods and manner of dispensing them.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; Scoville, *The Art of Compounding*; U. S. Pharmacopœia and National Formulary.

**Pharmacy 58—Dispensing Pharmacy Laboratory** (for University Sophomores). Recitation 1 hour, Laboratory course 7 hours, 16 weeks. 4½ points. Professors WIMMER, BROWN, CARTER and instructors.

The work of this course is divided into two laboratory periods, one of three hours which covers all of the work as outlined under course 56 of the second-year College Class, and one of four hours consisting of the compounding and dispensing of classes of preparations such as mixtures, draughts, lotions, solutions, emulsions, confections and jellies, pills, boli, dragees, lozenges, pastilles, lamels and orbicules, compressed tablets, powders, cachets, suppositories, pessaries and ointments, etc.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; Scoville, *The Art of Compounding*; U. S. Pharmacopœia and National Formulary.

**Pharmacy 59-60—Commercial Pharmacy and Pharmaceutical Jurisprudence** (for second-year College and University Classes). Lectures 1½ hours, Laboratories 1½ hours. 4½ points. Professor LASCOFF and Lecturer NEUSTAEDTER.

This course in Commercial Pharmacy is designed to give the student a practical knowledge of the basic principles that underlie the successful management of a business. Owing to a lack of knowledge of these principles, many pharmacists have failed to achieve the degree of success to which their professional knowledge and training entitle them.

The course consists of all the activities incidental to the opening and operation of a retail drug-store, including the choice of location, the elements of business administration and store management, insurance, problems of retail merchandising, including the value of discounts, banking, principles of advertising and salesmanship, business correspondence as well as the elements of systematic bookkeeping.

The accounting records are the basic source of data for business management. Accordingly, the course in commercial pharmacy will be devoted largely to the principles underlying the making and interpretation of these records.

The course develops the subject rapidly devoting its time and emphasis to the foundational problems of accounting. It is built up along the lines and methods of modern accounting practice. The subject-matter includes: theories of debit and credit; classification of accounts; underlying principles of various accounting records; business papers and documents used as the basis for first entry; simple problems of the balance sheet and income statement; single entry; controlling accounts; handling sales and purchases; safeguarding the cash; consignments, and related topics. Ample practice for students is provided. The work will be related to the modern pharmacy.

This course is also designed to familiarize the student with the general provisions of State and Federal Laws governing the practice of pharmacy. Ordinances and regulations having local application only will likewise be studied.

Special attention will be given to the prohibition and anti-narcotic laws and regulations.

A knowledge of these laws and regulations is essential to the proper and safe conduct of a drug store or pharmacy.

Textbooks: *Pharmacopœia of the United States*; *The National Formulary*; *National Dispensary*; Diekman and Wimmer, *Pharmacy Notes*.



**Pharmacy 109-110—Theoretical Pharmacy.** (For University Juniors). Lectures 1 hour, Recitation 1 hour. 4 points. Professors WIMMER, CARTER and instructors.

This course is intended for pharmaceutical chemists. It consists of topics selected from courses *Pharmacy 51-52*. Especial emphasis is laid upon the manufacture of pharmaceuticals on a large scale.

Textbooks: *U. S. Pharmacopœia X; National Formulary V.*

**Pharmacy 111-112—Practical Pharmacy** (for University Juniors). Laboratory 5 hours. 5 points. Professors WIMMER, CARTER and instructors.

This course includes the manufacture of a number of the more difficult Pharmacopœial and National Formulary preparations, as well as of inorganic and organic medicinal remedies. The work is intended to qualify students for positions in pharmaceutical manufacturing establishments.

Textbook: Wimmer, *Manufacturing Pharmacy Notes.*

**Pharmacy 113-114—Practical Dispensing Pharmacy** (for University Juniors). Laboratory 2 hours. 2 points. Professors WIMMER, CARTER and instructors.

This course embraces a thorough study of the various types of incompatibilities. A large number of prescriptions are compounded which illustrate how some incompatibilities may be avoided or overcome.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; Ruddiman, *Incompatibilities in Prescriptions.*

**Pharmacy 151-152—Advanced Pharmacy** (for University Seniors). Lecture 1½ hours. 3 points. Professor WIMMER.

This course is devoted to a detailed study of pharmaceutical, chemical and biological assay methods of vegetable and animal drugs, as well as of methods for their identification. It includes the newer methods employed, such as the standardization of tannin-containing drugs by the agglutination test, of saponin-containing drugs by the determination of their haemolytic indices, etc.

A portion of the lecture course is devoted to a study of essential oils. While especial emphasis is laid upon official oils, those of importance in the essential oil industry are included.

In a series of seminars, students are required to prepare and present before the professors and instructors in the department, papers on current topics of interest pertaining to pharmaceutical and allied sciences.

Textbooks: Fuller's *Analysis of Drugs and Medicines*; *U. S. Pharmacopœia*; *National Formulary V*; Gildemeister and Hoffman, *The Volatile Oils.*

**Pharmacy 153-154—Advanced Pharmaceutical Assaying** (for University Seniors). Laboratory, 7 hours. 7 points. Professors WIMMER, CARTER and instructors.

This course is intended to prepare the student for work as a drug analyst. The entire class carries out a proximate analysis of a vegetable drug. Individual problems in assay work of the most varied and difficult kind are assigned and the student is, to a certain extent, left to his own resources. The work embraces assays of galenicals, flavoring extracts, toilet preparations, cosmetics, medicinal gauzes, etc.

Textbooks: Fuller's *Analysis of Drugs and Medicines*; Nelson's *Introduction to the Analysis of Drugs and Medicines*; *Current Literature.*

#### ACADEMIC SUBJECTS

**Coll. 1-2—English** (for University Freshmen). Lectures and recitations, 3 hours, 6 points. Lecturer MCJIMSEY.

This is the Columbia College Course "A1-A2, in English Composition and Literature," required of all freshmen at that College.

**Coll. 3-4—American Government** (for University Freshmen). Lectures and recitations, 3 hours, 6 points. Lecturer MCJIMSEY.

This is the Columbia College Course "Government 1-2—American Government." It constitutes a general survey of the most persistent problems of American government—national, state, and local—considering problems of political organization in the first semester, and problems of administrative organization and personnel, and those related to the functions of finance, justice, the relation of government to economic life, and foreign relations in the second semester.

**Coll. 51-52—German** (for University Sophomores). Lectures and recitations, 5 hours, 10 points. Lecturer INGENHUETT.

This is the introductory course in German required of all freshmen at Columbia College and is equivalent to Courses *B1* and *B2*.

**Coll. 101-102—Mathematics** (for University Juniors). 5 points.

This course comprises the Columbia College Course "Mathematics A1, Trigonometry and A6r, Solid Geometry," and will not be given until the year 1929-30.

## SUMMER LABORATORY AND QUIZ COURSES

These courses are designed to assist students who have failed at the spring examinations to prepare for those of the fall, and to provide instruction for special students in the use of the microscope, in the examination of drugs and in pharmaceutical processes.

It will thus be seen that the work is not definitely fixed, but is made sufficiently elastic to allow it to be adapted to the special needs of individuals.

### LABORATORY COURSES 1928

#### *First and Second Year Classes*

June 11 to June 30—Department of Chemistry.  
 July 6 to July 26 Department of Materia Medica.  
 July 27 to August 16—Department of Pharmacy.

#### *Third Year Classes*

June 11 to July 16—Department of Chemistry.  
 July 9 to July 31—Department of Materia Medica.  
 July 23 to August 20—Department of Pharmacy.  
 (Five days of seven hours each week)

### QUIZ COURSES 1928

These courses will be held during the period from August 20 to September 8. First-year students will attend on Tuesday, Thursday and Saturday. Second- and third-year students on Monday, Wednesday and Friday. The schedule of hours for each day will be as follows:

*First Year*

9 a. m.—10 a. m. Botany  
 10 a. m.—12 m. Chemistry  
 12 m. — 1 p. m. Physics  
 2 p. m.— 4 p. m. Pharmacy  
 4 p. m.— 5 p. m. Posology

*Second Year*

9 a. m.—10 a. m. Materia Medica  
 10 a. m.—11 a. m. Toxicology  
 11 a. m.— 1 p. m. Pharmacy  
 2 p. m.— 4 p. m. Chemistry, Inorganic and Organic  
 4 p. m.—5 p. m. Physics

*Third Year*

10 a. m.—12 m. Pharmacy  
 12 m. — 1 p. m. Theories of Chemistry  
 2 p. m.— 4 p. m. Organic Chemistry

## LABORATORY COURSES 1929

*First and Second Year Classes*

June 10 to June 29—Department of Chemistry.  
 July 1 to July 20—Department of Materia Medica.  
 July 22 to August 10—Department of Pharmacy.

*Third Year Class*

June 10 to July 15—Department of Chemistry.  
 July 8 to July 30—Department of Materia Medica.  
 July 22 to August 19—Department of Pharmacy.

## QUIZ COURSES 1929

These courses will be held during the period from August 19 to September 7. First-year students will attend on Tuesday, Thursday and Saturday. Second- and third-year students on Monday, Wednesday and Friday. The schedule of hours for each day will be as follows:

*First Year*

9 a. m.—10 a. m. Botany  
 10 a. m.—12 m. Chemistry  
 12 m. — 1 p. m. Physics  
 2 p. m.— 4 p. m. Pharmacy  
 4 p. m.—5 p. m. Posology

*Second Year*

9 a. m.—10 a. m. Physiology  
 10 a. m.—12 m. Chemistry, Inorganic  
 12 m. — 1 p. m. Physics  
 2 p. m.— 4 p. m. Pharmacy

*Third Year*

10 a. m.—12 m. Pharmacy  
 12 m. — 1 p. m. Theories of Chemistry  
 2 p. m.— 4 p. m. Organic Chemistry

## EVENING COURSES

These courses of instruction, as reorganized, have been largely attended. Although they cannot be substituted for any of our regular work, leading to degrees, they have proven of great benefit to those who cannot attend instruction during the daytime and to those who desire to pursue special courses of study. General educational credits are not allowed for them. They are designed for special students as well as for members of our regular classes. Certificates will be awarded to those who attend at least 80 per cent of all of the exercises of the course for which they register and who, in addition, receive a satisfactory grade in a final examination. Students may be admitted at any time at the discretion of the instructor in charge. A registration fee of \$6.00 is required of each student. The courses are given on three evenings of each week from Monday, October 1, 1928, to Friday, May 10, 1929. Students may pursue more than one of the courses offered during the same semester. Fees are payable in advance and are not returnable. The following courses of instruction are offered.

## REGISTRATION

The Registrar's office will be open daily for Registration and on any of the evenings from 7 to 8 o'clock, during the first two weeks that courses are given.

**Chemistry Phr. 1-2E—Pharmaceutical Qualitative Analysis.** 1 hour classroom and 2 hours laboratory each week. Fee \$25 each semester. Professor SCHAEFER and Mr. JAYNE.

7:30-10:30 p. m., Friday.

Lecture, 7:30-8:20 p. m.

Laboratory, 8:30-10:30 p. m.

This course, which presupposes a knowledge of general pharmaceutical chemistry is designed to train students in the qualitative tests for metal-ions included in the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

Deposit for breakage, \$10.

**Chemistry, Phr. 3-4E—Pharmaceutical Qualitative Analysis.** 1 hour classroom and 2 hours laboratory work each week. Fee, \$25 each semester. Professor SCHAEFER and Mr. JAYNE.

7:00-10:00 p. m., Friday.

Laboratory, 7:00-9:00 p. m.

Lecture, 9:10-10:00 p. m.

This course is a continuation of 1-2e with particular reference to the U. S. P. tests for acid-ions. (Conditional on the enrollment of ten students.)

Fee for breakage, \$10.

**Chemistry, Phr. 5-6E—Pharmaceutical Volumetric Analysis.** 1 hour classroom and 2 hours laboratory work. Fee \$25 each semester. Professor SCHAEFER and Mr. JAYNE.

7:00-10:30 p. m., Friday.

This course is designed to give training in the volumetric assays of the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

Deposit for breakage, \$10.

**Chemistry, Phr. 7E—Examination of Urine.** First semester, 1 hour lecture and 2 hours laboratory work. Fee \$25. Professor SCHAEFER and Mr. JAYNE.

7:15–10:30 p. m., Friday.

Lecture, 7:20–8:20 p. m., Friday.

Laboratory, 8:30–10:30 p. m., Friday.

It should be noted that to qualify for "Director" of a laboratory, as defined by the Board of Health of the City of New York, a degree at least the equivalent of a B.S., is required.

In this course the qualitative and quantitative chemical tests of normal and pathological urine are studied; also the preparation and standardization of the necessary reagents. (Conditional upon the enrollment of twenty students.)

Deposit for breakage, \$10.

**Chemistry, Phr. 8E—Examination of Urine.** Second semester 1½ hours lecture and 2 hours laboratory work. Fee \$25. Professor SCHAEFER and Mr. JAYNE.

7:30–10:00 p. m., Friday.

Lecture, 7:30–8:00 p. m., Friday.

Laboratory, 8:20–10:00 p. m., Friday.

In this course, a continuation of 7E, the gravimetric, polariscopic, colorimetric and microscopic examination of urine is studied. (Conditional upon the enrollment of twenty students.)

Deposit for breakage, \$10.

**Pharmacy, Phr. 9–10E—Manufacturing Pharmacy.** 1½ hours lectures and 1½ hours laboratory work each week. Fee \$35 each semester. Professor BROWN and assistants.

7:30–10:30 p. m., Tuesday.

This course is of value to those desiring to prepare and place upon the market lines of specialties. The course is elastic and designed to meet individual requirements. One may take up the study of an entire series of preparations, or any one preparation in considerable detail. (Conditional upon the enrollment of ten students.)

**Pharmacy, Phr. 11–12E—Manufacture of Cosmetics and Toilet Preparations.** 1 hour lecture and 2 hours laboratory work each week. Fee \$35 each semester. Professor WIMMER and assistants.

7:30–10:30 p. m., Tuesday. Main lecture room, Pharmacy.

This course affords a thorough review of the entire subject of cosmetics and toilet preparations, their composition and manufacture. Face lotions, hair dyes and other hair preparations, face powders and paints, cream (greasy, non-greasy and vanishing), toothwashes and powders, etc., are studied and certain types are manufactured. (Conditional upon the enrollment of ten students.)

A summary of the lecture topics will be furnished upon request.

**Pharmacy, Phr. 13–14E—Perfume Materials and Perfumery.** 1 hour lecture and 2 hours laboratory work each week. Fee, \$50 each semester. Professor WIMMER and assistants.

Monday 7 p. m. Main Lecture Hall.

This course is of value to persons employed in essential oil houses and perfume manufacturing establishments and others desiring to enter this field. The lectures are illustrated with lantern slides and samples of the materials under discussion are exhibited. The laboratory work comprise the determination of physical constants, testing for impurities, etc. A systematic course in nose-training is included. The second semester consists mainly of practical work.

A summary of the course will be mailed upon request.

**Bacteriology, Phr. 15-16E—Principles and Practice.** 1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester, \$10 breakage deposit. Professor HART and assistants.

Monday—Lectures 7:00-8:00 p. m. Room 42, Pharmacy.

Monday—Laboratory 8:00-10:00 p. m.

This course includes the bacterial examination of sputum, excreta, water, air, milk and ice.

Special attention is given to the methods of disinfection and sterilization. The major portion of the time is devoted to the cultivation, morphology and staining properties of the more common pathogenic bacteria.

**Blood Analysis Phr. 17-18E**—1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester, \$10 breakage deposit. Professor H. TAUB and assistants.

7:00-10:00 p. m., Tuesday.

Tuesday—Lecture 7:00-8:00 p. m.

Tuesday—Laboratory 8:00-10:00 p. m.

The entire semester is devoted to the chemical analysis of blood, the preparation of blood smears and blood count.

**Phr. 20E—Parasites of the blood and intestines.** 1 hour lecture and 2 hours laboratory work each week, second semester. Fee \$40 each semester, \$10 breakage deposit. Professor HART and assistants.

Tuesday—7:00-10:00 p. m.

In this course chief attention is given to changes from normal to abnormal blood due to parasites as well as the more pathogenic blood and intestinal parasites.

Time is also allotted to the mycology of foods.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

THE ALUMNI ASSOCIATION OF THE COLLEGE OF  
PHARMACY OF THE CITY OF NEW YORK

OFFICERS AND COMMITTEES, 1928—1929

*President*

VIVIAN K. COMMONS

*Honorary President*

ADOLPH HENNING

*Vice-Presidents*

FREDERICK D. LASCOFF

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MAY O'CONNOR DAVIS

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*Executive Board*

HARRY TAUB, 1929.

ARTHUR J. BAUER, 1930.

DAVID NEWBERGER, 1929.

VITO CALCAGNO, 1930.

HUGO H. SCHAEFER, 1929.

LEWIS N. BROWN, 1931.

ROBERT R. GERSTNER, 1930.

JOHN H. HECKER, 1931.

LESLIE JAYNE, 1931.

*Committee on Papers and Queries*

C. P. WIMMER

ADOLPH HENNING

JOHN H. HECKER

*Delegates to the American Pharmaceutical Association*

GEO. C. DIEKMAN

C. P. WIMMER

ADOLPH HENNING

*Delegates to the New York State Pharmaceutical Association*

CHARLES W. BALLARD

HUGO H. SCHAEFER

VITO CALCAGNO

*Delegates to the New Jersey Pharmaceutical Association*

HAROLD McADAMS

CHARLES W. HOLTON

HARRY E. BISCHOFF

*Delegates to the Connecticut Pharmaceutical Association*

CURT P. WIMMER

HAROLD LEVY

FRANK V. DAMTOFT

## ENDOWMENTS

For ninety-nine consecutive years the College of Pharmacy of the City of New York has maintained its annual courses of instruction for the education and training of pharmacists. That this instruction has exhibited a steady extension and improvement is clearly recorded in the successive editions of its annual prospectus. That such a result could not have been attained by the use of students' fees, unaided by other resources, will be readily understood by all who have had experience in educational administration. Such assistance may be said to have begun with the generous contribution of free instruction services by Professors Edward R. Squibb, Charles F. Chandler and others, in the early history of the institution, and to have continued with the services of their successors, and the unpaid management of officers and trustees. At various times financial crises have been met by generous donations of money by officers and members, and occasionally by outside friends. In some cases, as when new quarters were to be secured, a new building was to be erected, or herbarium or apparatus to be bought, the sums thus contributed have been large, considering the resources of those contributing.

As indicated in the preceding pages of this *Announcement*, in addition to the regular course of two years, leading to the degree of Ph.G., the College now provides a regular course of three years, leading to the degree of Ph.Ch., with an additional year of optional work, leading to the degree of B.S. in Pharmacy.

It is not to be expected that the scanty revenue derived from the fees of the small number of students who will pursue these advanced studies will begin to provide the necessary means for meeting the additional expenditures. The College must undertake these burdens as its contribution to pharmaceutical education.

Under such conditions, it is felt that an appeal should be made to those who are interested in promoting educational development in America to give their favorable consideration and to lend their financial aid to the present efforts of the School.

Since the actual instruction work of the school calls for the expenditure of our entire income received from students' fees, it follows that we are compelled, like other schools, to seek other sources of income for meeting unusual expenses.

Under the stress of immediate necessity, we have recently completed and occupied an extension to our former building, costing approximately \$300,000. This work was undertaken in the belief that the necessary amount would be contributed by the alumni and friends of the College. Up to the present time, only about one-half of the amount has been subscribed, and we present a special appeal for contributions to this cause.

There are also a number of ways in which comparatively small contributions will be immediately productive of great good in specific directions, and several of these are discussed below.

## LIBRARY MAINTENANCE

The library facilities required by men engaged in advanced studies are necessarily much more extensive than those now provided by the College. The re-



search work in which such men will engage will call for a full supply of works of reference, not only in pharmaceutical subjects, but in the sciences contributory to pharmacy. Generous friends of the College, and one such in particular, have made frequent and extensive contributions to the Library, but it is highly desirable that an endowment be established that will yield a permanent annual fund of \$500 for such a purpose.

#### APPARATUS

The College, thanks to the generosity of the late Mr. Edward Kemp, possesses a splendid working equipment of physical apparatus, suitable for the ordinary purposes of pharmaceutical education. The advanced work of graduate students will require not only extensive additions, but continuous expenditures for new designs in order to keep pace with discovery and improvement.

An endowment of from \$5,000 to 10,000 would admirably meet this demand.

#### MUSEUM

With the exception of the National Museum at Washington, there is no extensive pharmaceutical or materia medica museum in this country. Small museums exist in Philadelphia, Detroit, Cincinnati, at the New York Botanical Garden and elsewhere, but nowhere is there a museum proper comparable with those in London and Berlin. Civic pride, if no other consideration, should suffice to secure the establishment in New York City of a museum proportionate with the importance of the city as the port of entry for more than three-fourths of the drugs received into the United States. There are, however, other considerations of far greater importance. Scarcely a week passes without more than one inquiry from importers, brokers or merchants, and even from the City and Federal Departments, for unobtainable information concerning commercial articles of this class.

There should be some institution to which such inquiries could turn with reasonable certainty of an accurate reply. Furthermore, the ambition to supply Doctors of Pharmacy who are competent to meet all demands made upon them, even for the discovery of desired unknown facts, renders it imperative that a storehouse of materials for investigation should be available. The ideal location for such a museum is with the department of pharmacy of a strong and active university.

Such a museum involves more than a mere collection of labeled articles in cases. It calls for a comprehensive plan providing for future accessions, and for investigating the utility of new products. This calls for a curator with an encyclopedic knowledge of the subject, and qualified to pursue original researches. Such an institution, thus equipped, could provide a continuous supply of original contributions in economic botany, connected upon the one side with sources of sound scientific information and authentication, and upon the other with the material welfare of our people.

A more creditable and permanent monument to its donor could scarcely be conceived. To establish such a museum, and also to provide properly for its care and maintenance, would require from \$100,000 to \$150,000.

## ADDITIONAL PROFESSORSHIPS

The establishment of a number of lecture courses to be served by specialists in their respective subjects is an essential requisite in the work of the final years of an advanced course. Perhaps the most important of such subjects is the history of chemistry and pharmacy. The provision of even a short series of lectures would do much to point the way to investigation in the light of former achievement.

Those desiring to contribute toward any of the purposes named, or others in which they may be interested, will upon request be supplied with a form which may be used for the purpose.

## REGISTER OF GRADUATES

### BACHELORS OF SCIENCE IN PHARMACY, JUNE 1, 1927

Dimler, Marguerite Caroline  
104 Ninth Street, Hoboken, N. J.  
Gutchin, Samuel  
66 Powell Street, Brooklyn, N. Y.  
Hauck, Rudolf Otto  
3511 34th Street, Jackson Heights, N. Y.  
Levin, Fred 77-12th Avenue, Paterson, N. J.  
Lieberman, Samuel Solomon  
17 Attorney Street, New York, N. Y.  
(5)

### PHARMACEUTICAL CHEMISTS, JUNE 1, 1927

Adams, Joseph Edison  
63 Hopkins Avenue, Jersey City, N. J.  
Anzelmi, Edward  
461 Rogers Avenue, Brooklyn, N. Y.  
Bevacqua, Alfred  
369 Third Street, Jersey City, N. J.  
Brunswick, Jerome A.  
41 West 96 Street, New York, N. Y.  
Buccino, Raphael Joseph  
307 Nichol Street, Bridgeport, Conn.  
Cody, Catherine Elizabeth  
94 Main Street, New Canaan, Conn.  
Durfee, Olive  
17 West 121 Street, New York, N. Y.  
Goldberg, Samuel  
213-15 Seigel Street, Brooklyn, N. Y.  
Guisado, Frank Edward  
29 Willow Street, Brooklyn, N. Y.  
Johnson, Eric P.  
211 East 33 Street, New York, N. Y.  
Malorsfsky, David  
23 Suffolk Street, New York, N. Y.  
O'Brien, Samuel Graham  
14 Smith Street, Pt. Chester, N. Y.  
Pokorny, Frank Joseph  
52-15 Hospel Street, Elmhurst, N. Y.  
(13)

### PHARMACEUTICAL CHEMIST, OCTOBER 26, 1927

Kitts, Edward Angermire  
Richfield Springs, N. Y.  
(1)

### GRADUATES IN PHARMACY, OCTOBER 4, 1927

Allen, Abraham  
860 East 161st Street, New York City  
Averbach, Abraham Irwin  
64 East 95th Street, Brooklyn, N. Y.  
Balotin, Joel Ellenville, N. Y.

Bonaccolto, Ada  
322 Second Avenue, New York City  
Brook, Max  
251 Michigan Avenue, Mobile, Ala.  
Brotman, Sam  
147 Stanton Avenue, New York City  
De Cicco, Anthony Charles  
260 President Street, Brooklyn, N. Y.  
Deitz, Martin David  
47 So. Main Street, Norwalk, Conn.  
Eagle, William  
186 Ludlow Street, New York, N. Y.  
Frankel, Ezra  
140 Stanton Street, New York, N. Y.  
Friedman, Morris  
50 East 100th Street, New York, N. Y.  
Goldman, Pincus  
2847 West 33rd Street, Coney Island, N. Y.  
Hertzoff, Max  
41 West 113th Street, New York City  
Hummel, Peter Anthony  
261 French Street, New Brunswick, N. J.  
Irvin, Vera  
18 West 138th Street, New York City  
Isaacson, Harry  
2141 Homecrest Avenue, Brooklyn, N. Y.  
Keegan, James John Liberty, N. Y.  
Klein, Isidore  
433 East 138th Street, New York, N. Y.  
Kramer, Paul  
1326 Washington Avenue, New York City  
Lemberg, Benjamin  
159 East 52nd Street, New York, N. Y.  
Leventhal, Abraham  
70 Osborne Street, Brooklyn, N. Y.  
MacNear, Raymond  
22 Fullerton Avenue, Newburgh, N. Y.  
Marcus, Louis  
169 East 102nd Street, New York, N. Y.  
Meyerowitz, George  
20 East 100th Street, New York, N. Y.  
c/o Kerbes  
Miller, Henry  
Main Street, Fleischmanns, N. Y.  
Miraglia, Albert  
661 Palisade Avenue, Grantwood, N. J.  
Prunier, Louis Bernard Lake Placid, N. Y.  
Rosati, Albert Benedict  
9125-96th Street, Woodhaven, N. Y.  
Rosenstock, Pearl  
48 Canal Street, Ellenville, N. Y.  
Rubin, Fannie  
2140 Clinton Avenue, New York, N. Y.

- Silverstein, Morris  
77 Keap Street, Brooklyn, N. Y.
- Sirota, Benjamin  
1419 Pitkin Avenue, Brooklyn, N. Y.
- Smith, Lillian Russell  
26 Lafayette Street, Brooklyn, N. Y.
- Solow, Max  
58 Cannon Street, New York, N. Y.
- Steigner, George William  
438 Graham Avenue, Paterson, N. J.
- Tekowsky, Abraham  
1725-51st Street, Brooklyn, N. Y.
- Tucker, Max  
416 East 52nd Street, New York, N. Y.
- Wolf, David  
860 Whitlack Avenue, New York City  
(38)
- GRADUATE IN PHARMACY, NOVEMBER 1, 1927
- Schlanger, Michael  
3001 Middletown Rd., New York, N. Y.  
(1)
- GRADUATES IN PHARMACY, MAY 16, 1927
- Ackerman, Leo  
915 East 15th Street, Brooklyn, N. Y.
- Adler, Max Abraham  
602 East 11th Street, New York, N. Y.
- Allahut, Max  
250 Penn Street, Brooklyn, N. Y.
- Alpert, Jacob Joseph  
987 Trinity Avenue, Apt. 2, New York, N. Y.
- Amtman, Rudolph  
1450 Clay Avenue, New York, N. Y.
- Baer, Philip  
1597 Sterling Place, Brooklyn, N. Y.
- Bard, Aaron  
1700 Crotona Park East, New York, N. Y.
- Baron, Harry  
1352 St. Nicholas Avenue, New York, N. Y.
- Becker, Abraham  
836 New Lots Avenue, Brooklyn, N. Y.
- Berinsky, Abraham  
985 East Tremont Avenue, New York, N. Y.
- Berler, Abraham  
546 New Jersey Avenue, Brooklyn, N. Y.
- Berlin, Henry  
338 Broadway, Saratoga Springs, N. Y.
- Berman, Louis 33 Avenue A, New York, N. Y.
- Bernstein, Philip  
766 Ninth Avenue, New York, N. Y.
- Bezahler, Charles  
814 East 167th Street, New York, N. Y.
- Bindersky, Morris Louis  
1463 St. Marks Avenue, Brooklyn, N. Y.
- Blank, Samuel  
234 East Third Street, New York, N. Y.
- Blatman, Leo 3510-35th Street, Astoria, L. I.
- Blaunstein, Harry  
786 East 165th Street, New York, N. Y.
- Bloom, Morris  
96 Bay 17th Street, Brooklyn, N. Y.
- Bogart, Jacob  
233 East 110th Street, New York, N. Y.
- Bookchin, Benjamin  
23 Harvard Court, Brighton Beach, N. Y.
- Botfeld, Louis  
32 Stanwix Street, Brooklyn, N. Y.
- Bousel, Morris  
3120 Hull Avenue, New York, N. Y.
- Cernik, Joseph John  
311 East 73rd Street, New York, N. Y.
- Chalian, Alexander  
1463 St. Nicholas Ave., New York, N. Y.
- Cohen, Michael  
602 Pennsylvania Ave., Brooklyn, N. Y.
- Columbus, Leo  
27 West 9r Street, New York, N. Y.
- Cona, Josephine  
182 So. Centre Street, Orange, N. J.
- Cooper, Israel  
3885 Bedford Avenue, Brooklyn, N. Y.
- Cooper, Julius Sussman  
72 Spring Street, Norwich, Conn.
- Diamond, Rudolph  
2 East 108 Street, New York, N. Y.
- DiBitetto, Frank Robert  
1878-63rd Street, Brooklyn, N. Y.
- Dickson, Martin  
262 Seigel Street, Brooklyn, N. Y.
- Diliberto, Paul Joseph  
30 St. Jerome Avenue, Holyoke, Mass.
- Dinitz, Charles  
96 McKibbin Street, Brooklyn, N. Y.
- Donenhirsh, Louis  
74-76 Chrystie Street, New York, N. Y.
- Dreizin, Gersh Kushelev Abramov  
1698 Vyse Avenue, c/o D'Arion, New York,  
N. Y.
- Edelman, Benjamin  
1551 Walton Avenue, New York, N. Y.
- Eichenbaum, Samuel  
235 East 103 Street, New York, N. Y.
- Elkind, Joseph Benjamin  
15 Overlook Terrace, Yonkers, N. Y.
- Etkins, Abraham  
2161 Douglass Street, Brooklyn, N. Y.
- Fiertel, Israel David  
151 Suffolk Street, New York, N. Y.
- Fishman, Fannie  
519 Albany Avenue, Brooklyn, N. Y.
- Galluzzo, Rose  
1864 Wallace Avenue, New York, N. Y.
- Gilbert, Charles  
1571 West 11 Street, Brooklyn, N. Y.
- Glassman, Louis  
101 Straight Street, Paterson, N. J.

- Ginnis, Louis  
1849-66th Street, Brooklyn, N. Y.
- Goldenberg, Harry  
404 Georgia Avenue, Brooklyn, N. Y.
- Goldfield, Max  
270 Windsor Avenue, Hartford, Conn.
- Goldstein, Meyer  
292 Hinsdale Street, Brooklyn, N. Y.
- Goldwasser, Abraham  
555 Bushwick Avenue, Brooklyn, N. Y.
- Gordon, William  
1366 Brook Avenue, New York, N. Y.
- Gorga, Alfonso  
281 Hudson Avenue, Brooklyn, N. Y.
- Gottheil, David Isidore  
1851 Bathgate Avenue, New York, N. Y.
- Grey, William  
1548 East 4 Street, Brooklyn, N. Y.
- Grogin, James Isidor  
1031-54th Street, Brooklyn, N. Y.
- Haase, Milton  
2123 Tiebout Avenue, New York, N. Y.
- Hacker, Louis  
4219-15th Avenue, Brooklyn, N. Y.
- Haiken, Benjamin  
822 Beck Street, New York, N. Y.
- Hammecker, Horton Martin  
1500 W. Genesee Street, Syracuse, N. Y.
- Hashinsky, Edward  
488 Snediker Avenue, Brooklyn, N. Y.
- Heller, Aaron  
1766 Bergen Street, Brooklyn, N. Y.
- Hillinger, Morris William  
2922 LaSalle Avenue, Los Angeles, Cal.
- Honiberg, Aaron David  
254 Windsor Avenue, Hartford, Conn.
- Hurvitz, Mrs. Jennie  
797 Crotona Park North, New York, N. Y.
- Israel, Max  
120 East 110 Street, New York, N. Y.
- Jospey, Milton  
17 Beach 37th Street, Edgemere, N. Y.
- Kaplan, Jonah  
691 Van Sicklen Avenue, Brooklyn, N. Y.
- Kaplan, Morris  
1420-43rd Street, Brooklyn, N. Y.
- Kaplan, Robert  
628 Vermont Street, Brooklyn, N. Y.
- Karpf, Bernard  
1509 Charlotte Street, New York, N. Y.
- Katz, Emanuel  
280 Stanton Street, New York, N. Y.
- Katz, Pearl L.  
738-37th Street, Milwaukee, Wis.
- Kaufman, Charles  
659 Saratoga Avenue, Brooklyn, N. Y.
- Kessler, Harry  
2435 Creston Avenue, New York, N. Y.
- Kessler, Selig Ezra  
14 East 120 Street, New York, N. Y.
- Kirschner, Charles Israel  
159 South 4 Street, Brooklyn, N. Y.
- Klein, Joseph  
720 East 9 Street, New York, N. Y.
- Kolber, Samuel W.  
252 Driggs Avenue, Brooklyn, N. Y.
- Koslowsky, Louis Oscar  
1967-71st Street, Brooklyn, N. Y.
- Kritman, Azril  
334 East 9 Street, New York, N. Y.
- Krouse, Sidney Morris  
1011 Simpson Street, New York, N. Y.
- Krulis, Albert Joseph  
32-14-79th Street, Jackson Heights, L. I.
- LaRocca, Michael  
65½ Skillman Avenue, Brooklyn, N. Y.
- Leibson, Samuel  
366 Pennsylvania Avenue, Apt. 2-c Brooklyn, N. Y.
- Leikin, Samuel  
73 Conselyea Street, Brooklyn, N. Y.
- Lercher, Juda  
272 East 7 Street, New York, N. Y.
- Leschinsky, Morris  
13 Pitt Street, New York, N. Y.
- Levine, Benjamin  
364 West 36 Street, New York, N. Y.
- Levinsky, Charles  
995 Simpson Street, New York, N. Y.
- Levy, Artrelle  
2329 Seventh Avenue, New York, N. Y.
- Levy, Morris Jack  
22 Prospect Park, S. W. Brooklyn, N. Y.
- Lewis, Edgar  
2057-78th Street, Brooklyn, N. Y.
- Lewitus, Victor  
3459 DeKalb Avenue, New York, N. Y.
- Lippmann, Max  
2910 Valentine Avenue, New York, N. Y.
- Liss, Julius  
139 Eldridge Street, New York, N. Y.
- Lovich, Boris  
1121 Morris Avenue, c/o Rubin, New York, N. Y.
- Lovish, Sidney A.  
227 Hart Street, Brooklyn, N. Y.
- Lurie, Abraham  
1950 Bryant Avenue, New York, N. Y.
- Maddock, Catherine Margaret  
Coll. of Mt. St. Vincent, Mt. St. Vincent, N. Y.
- Malinak, Charles Henry  
109 Ludlow Street, New York, N. Y.
- Mandell, Henry  
191 Moore Street, Barberton, Ohio
- Markowitz, Max  
222 East 124 Street, New York, N. Y.

- Mehr, Joseph  
77 Division Avenue, Brooklyn, N. Y.
- Milea, Francis S.  
196 President Street, Brooklyn, N. Y.
- Miller, Joseph  
105 East 109 Street, New York, N. Y.
- Miller, Kenneth Scott  
23 Dale Avenue, Ossining, N. Y.
- Mintzer, Marcus  
223 East 4 Street, New York, N. Y.
- Monestersky, David H.  
923-53 Street, Brooklyn, N. Y.
- Nadelshaft, Isaac  
827 Kelly Street, New York, N. Y.
- Nadler, Charles Jack  
108 Gerry Street, Brooklyn, N. Y.
- Nash, Henry Bergen  
34 Fairview Avenue, Walden, N. Y.
- Nielsen, Laurence R.  
235a Monitro Street, Brooklyn, N. Y.
- Ochetell, Aaron  
2971 West 25 Street, Coney Island, N. Y.
- Okrent, Frank  
3019 Ocean Spray Avenue, Brighton Beach,  
N. Y.
- Okst, George  
Kings Park, N. Y.
- O'Neill, Bernard  
344 Dennison Parkway, Corning, N. Y.
- Palange, Edward Arthur  
193 Bleecker Street, New York, N. Y.
- Penner, Samuel  
1769 Prospect Place, Brooklyn, N. Y.
- Pierri, Esther  
6302 Saunders Street, Elmhurst, L. I.
- Plotkin, Louis  
781-44th Street, Brooklyn, N. Y.
- Pohl, Morris  
1118 Avenue K, c/o Dr. Pohl, Brooklyn,  
N. Y.
- Pollock, Lawrence  
1640 University Avenue, New York, N. Y.
- Reife, Leo M.  
1023 Hopkinson Avenue, Brooklyn, N. Y.
- Reisman, Saul  
1341 Southern Boulevard, New York,  
N. Y.
- Rievman, Homer  
2259-63rd Street, Brooklyn, N. Y.
- Rinzler, Philip  
1243-55th Street, Brooklyn, N. Y.
- Rizzuto, Joseph  
1065 DeKalb Avenue, Brooklyn, N. Y.
- Robinson, Milton  
981 East 14 Street, Brooklyn, N. Y.
- Rose, Kenneth William  
39 South 12 Street, Mt. Vernon, N. Y.
- Rosenberg, Benjamin  
858 Beck Street, New York, N. Y.
- Rosenblatt, Morris  
1354 Brook Avenue, New York, N. Y.
- Rosenblum, Ben  
348 Avenue C, Bayonne, N. J.
- Rosenblum, Max  
1976 Second Avenue, New York, N. Y.
- Rosenfeld, Marcus  
652 Willoughby Avenue, Brooklyn, N. Y.
- Rosenthal, Irving  
299 South 5th Street, Brooklyn, N. Y.
- Rothman, Israel  
465 Cleveland Street, Brooklyn, N. Y.
- Rubens, Nathan  
105 Water Street, Stapleton, S. I.
- Rubenstein, Sidney  
505 Essex Street, Brooklyn, N. Y.
- Rubin, Israel  
324 Georgia Avenue, Brooklyn, N. Y.
- Safier, Herman  
1904 Mermaid Avenue, Coney Island, N. Y.
- Samlowitz, Max  
89 Glenmore Avenue, Brooklyn, N. Y.
- Sanders, Herbert  
7426 Seventh Avenue, Brooklyn, N. Y.
- Schaefer, Frank A.  
673 Summit Avenue, Jersey City, N. J.
- Scherer, Ralph  
73 Avenue C, New York, N. Y.
- Schmelzer, Henry  
3803 Laurel Avenue, Seagate, N. Y.
- Schwartz, Julius  
105 West 114th Street, New York, N. Y.
- Schwartz, Paul  
16 Wayne Street, Middle Village, N. Y.
- Schwarz, Charles  
366 Montgomery Street, Brooklyn, N. Y.
- Shamus, Leon  
509 E. Raynor Avenue, Syracuse, N. Y.
- Shapiro, Irving Harold  
179 Wood Avenue, Bridgeport, Conn.
- Sherman, Louis Joseph  
78 Barrett Street, Brooklyn, N. Y.
- Shiffman, Samuel  
39 Essex Street, New York, N. Y.
- Shulman, Jack  
380 Park Avenue, Perth Amboy, N. J.
- Siegel, Samuel  
307a Berriman Street, Brooklyn, N. Y.
- Sitar, Joseph John  
132 Spring Street, Union City, Conn.
- Smith, George  
1448-79th Street, Brooklyn, N. Y.
- Soren, Charles Harry  
932 Hoe Avenue, New York, N. Y.
- Spage, Robert  
55-47th Street, Corona, N. Y.
- Spiegelglass, Samuel  
1099 Union Avenue, New York, N. Y.

- Stern, Morris  
336 Prospect Street, Perth Amboy, N. J.
- Stern, William  
159 East 94th Street, Brooklyn, N. Y.
- Stout, William Calvin  
71 Cambridge Street, Valley Stream, L. I.
- Tanenbaum, Hyman A.  
52 Barrett Street, Brooklyn, N. Y.
- Tartakowsky, Louis  
1152 Simpson Street, New York, N. Y.
- Tornow, Abraham M.  
110 Orient Avenue, Jersey City, N. J.
- Trotsky, Meyer  
224 East 11th Street, New York, N. Y.
- Troub, Kopel  
258 Herze Street, Brooklyn, N. Y.
- Tucker, Louis  
1295 Sheridan Avenue, New York, N. Y.
- Turk, Jacob Bernard  
308 New Lots Avenue, Brooklyn, N. Y.
- Volino, Anthony John  
847 East 230th Street, New York, N. Y.
- Weintraub, Sol  
1299 St. Johns Place, Brooklyn, N. Y.
- Westerman, Abraham  
416 East 120 Street, New York, N. Y.
- Wiener, Edward Martin  
1120-56th Street, Brooklyn, N. Y.
- Wiener, Meyer  
1280<sup>b</sup> Sheridan Avenue, New York, N. Y.
- Wisikin, Morris  
522 East 13th Street, New York, N. Y.
- Wolfowitz, Isidore  
189 Hart Street, Brooklyn, N. Y.
- Woodley, Edna Catherine  
College of Mt. St. Vincent, Mt. St. Vincent, N. Y.
- Yablonski, Stanley Arthur  
174 Clinton Avenue, Maspeth, N. Y.
- Yakoubian, Leon  
5424-18th Avenue, Brooklyn, N. Y.
- Young, William  
324 Snediker Avenue, Brooklyn, N. Y.
- Zablocki, Henry  
93 South 10th Street, Brooklyn, N. Y.
- Zahn, Joseph Bernard  
1466 Brook Avenue, New York, N. Y.
- Zaugg, Stanley Britain  
2502 Chamberlain Avenue, Chattanooga, Tenn.
- Zutler, Elias  
112 West 61st Street, New York, N. Y.  
(186)

## REGISTER OF STUDENTS, SESSION OF 1927-1928

## SENIOR UNIVERSITY CLASS

- Cody, Catherine  
94 Main Street, New Canaan, Conn.
- Durfee, Olive  
17 West 121st Street, New York, N. Y.
- Goldberg, Samuel  
213-15th Street, Brooklyn, N. Y.
- Kennedy, Margaret H.  
Hospital of the Good Shepherd, Syracuse University, Syracuse, N. Y.
- Kitts, Edward A.  
333 West 22nd Street, New York, N. Y.  
(5)
- Brooks, Vernon H.  
25 Maple Place, Port Chester, N. Y.
- Burch, Egbert Alfred  
228 West 137th Street, New York, N. Y.
- Cohen, George  
551 Boulevard, Bayonne, N. J.
- Cohen, Morris  
77 Madison Street, New York, N. Y.
- Cohen, Samuel N.  
2212 Surf Avenue, Coney Island, N. Y.
- Dick, Lester C.  
Keyport, N. J.
- Drucker, David M.  
249 Broome Street, New York, N. Y.
- Dubinsky, T.  
133 Herzel Street, Brooklyn, N. Y.

## JUNIOR UNIVERSITY CLASS

- Abramowitz, Abraham  
60 East 3rd Street, New York, N. Y.
- Achilson, Peter L.  
2380-8th Avenue, New York, N. Y.
- Adler, Alan  
61 East 3rd Street, New York, N. Y.
- Baiczer, Abraham I.  
1072 Union Avenue, New York, N. Y.
- Becker, Herbert C.  
777 Woodward Avenue, Brooklyn, N. Y.
- Beckerman, Sidney  
1697 Lexington Avenue, New York, N. Y.
- Einhorn, Charles  
180 Riverdale Avenue, Brooklyn, N. Y.
- Eisenberg, Joseph  
592 West Side Avenue, Jersey City, N. J.
- Epstein, George  
105 Mott Avenue, Long Island City, N. Y.
- Fanelli, Dominick  
547 Fourth Avenue, Brooklyn, N. Y.
- Gattuso, Charles  
22 Rivington Street, New York, N. Y.
- Giordano, Herman  
376 Frankfort Street, Orange, N. J.

- Giovanelli, Dominic  
1263 Herkimer Street, Brooklyn, N. Y.
- Givens, Horace T. F. Freehold, N. J.
- Goldberg, Max  
1368 Myrtle Avenue, Brooklyn, N. Y.
- Golden, Jonas  
11a Louis Place, Brooklyn, N. Y.
- Goldman, Harry  
474 Warwick Street, Brooklyn, N. Y.
- Grebel, Pincus  
417 Grand Street, New York, N. Y.
- Gregorius, Ruth Lawrence, L. I., N. Y.
- Gross, Samuel  
424 East 5th Street, New York City
- Gussow, Charles M.  
2295 Morris Avenue, New York, N. Y.
- Herman, Milton  
1464 Seabury Place, New York, N. Y.
- Hodes, Julius  
2362 Ryer Avenue, New York, N. Y.
- Horin, Maynard  
69 Carl Street, Jamaica, N. Y.
- Horowitz, Simon  
127 East Broadway, New York, N. Y.
- Hurwitz, Morris H.  
24 Ashford Street, Hartford, Conn.
- Johnson, Cornelius L.  
11a Dewey Place, Brooklyn, N. Y.
- Kantrowitz, Israel  
195 Madison Street, New York, N. Y.
- Kaplan, Frances Sharon Valley, Conn.
- Katz, Sidney  
211 East 105th Street, New York, N. Y.
- Katzowitz, Morris  
156 South 8th Street, Brooklyn, N. Y.
- Kibbe, August G.,  
162 Egbert Avenue, West New Brighton,  
S. I., N. Y.
- Klein, Samuel  
1486 Vyse Avenue, New York, N. Y.
- La Macchia, Mildred  
162 Day Street, New Haven, Conn.
- Lauria, Victor  
210 De Graw Street, Brooklyn, N. Y.
- Lebensart, Manning  
246 West 25th Street, New York, N. Y.
- Leibowitz, Max E.,  
348 Jefferson Avenue, Brooklyn, N. Y.
- Levinson, Arthur  
26 South Bridge Street, Poughkeepsie, N. Y.
- Levy, Gussie  
215 Summit Avenue, Union City, N. J.
- Lippe, Abraham A.  
916 Blake Avenue, Brooklyn, N. Y.
- Malinoff, Elias A.  
1324 College Avenue, New York, N. Y.
- Metlitz, Henry Nanuet, N. Y.
- Michaels, Jacob  
1433 Bryant Avenue, New York, N. Y.
- Miller, I. H.  
337 Ridge Avenue, Lakewood, N. J.
- Montemurro, Thomas D.  
531-42nd Street, Union City, N. J.
- Neuman, Harry  
215 Lawrence Place, Paterson, N. J.
- Palmera, Jerome J.  
274-3rd Street, Jersey City, N. J.
- Porte, Solomon  
2054-63rd Street, Brooklyn, N. Y.
- Pucci, Guido  
1233 Third Avenue, Woodcliff, N. J.
- Rifkin, Isidor  
2026 Douglass Street, Brooklyn, N. Y.
- Rochelson, George  
1416 Stebbins Avenue, New York, N. Y.
- Rocker, Philip  
120 East 2nd Street, New York, N. Y.
- Saldinger, Karl  
554 De Kalb Avenue, Brooklyn, N. Y.
- Schimmel, Moses L.  
1315 Brighton Beach Avenue, Brooklyn,  
N. Y.
- Schmilowitz, Samuel  
170-23 171st Street, Jamaica, N. Y.
- Schultz, Joseph  
990 Aldus Street, New York, N. Y.
- Schutzbank, Victor  
R. F. D. No. 3, Lakewood, N. J.
- Schwartz, Max  
1629 Lexington Avenue, New York, N. Y.
- Scowcroft, Ronald  
582 Craig Avenue, Tottenville, S. I., N. Y.
- Seng, John W.  
107 Carroll Place, New Brunswick, N. J.
- Shapiro, Harry  
176 Riverdale Avenue, Brooklyn, N. Y.
- Simon, Harry  
28 Gouverneur Street, New York, N. Y.
- Simon, Isidore  
366 Hamilton Avenue, Paterson, N. J.
- Simone, Catherine Bellina  
Croton-on-Hudson, N. Y.
- Sobel, Joseph  
194 East Main Street, Bridgeport, Conn.
- Spielman, Samuel  
981 Simpson Street, New York, N. Y.
- Stauber, Robert August  
1015 Castle Hill Avenue, New York, N. Y.
- Steinberg, Abraham  
620 Riverdale Avenue, Brooklyn, N. Y.
- Sternberg, Morris  
904 East 95th Street, Brooklyn, N. Y.
- Thierer, Lionel L.  
1968 East 2nd Street, Brooklyn, N. Y.
- Tiesler, Adolph Pleasantville, N. Y.
- Tisch, Leo  
1411 Madison Avenue, New York, N. Y.



- Topilow, Jacob  
155 West 29th Street, Bayonne, N. J.
- Tuchband, Louis  
Bergenfield, N. J.
- Weisman, Isadore  
37 Kingsbury Street, Waterbury, Conn.
- Weiss, Harry  
1447 Longfellow Avenue, New York, N. Y.
- Zabner, Jacob  
876 Lake View Road, Cleveland, Ohio
- Zalowitz, Morris  
419 Washington Avenue, Elizabeth, N. J.  
(86)
- SOPHOMORE UNIVERSITY CLASS
- Aaronson, Irving Bernard  
100 Humboldt Street, Brooklyn, N. Y.
- Alderman, George Joseph  
214 New Main Street, New York, N. Y.
- Appelbaum, Joseph  
147 Schenectady Avenue, Brooklyn, N. Y.
- Bauso, Felix  
2400 Myrtle Avenue, Ridgewood, N. Y.
- Beck, Louis  
Cresskill, N. J.
- Berry, Isadore  
76 Morgan Street, Springfield, Mass.
- Biberfeld, Abraham L.  
150-17th Street, West New York, N. Y.
- Brown, Gustave H.  
884 Riverside Drive, New York, N. Y.
- Bulda, Frank  
262 Fifth Avenue, Astoria, L. I.
- Caniparoli, Olga  
2529 Cambreleng Avenue, New York, N. Y.
- Carbonaro, John  
76 Carrol Street, Brooklyn, N. Y.
- Carnot, Edward J.  
203 East 12th Street, New York, N. Y.  
c/o Dupree Chemical Co.
- Cherr, George  
1703 Washington Avenue, New York, N. Y.
- Cohen, Irving S.  
1121 Tinton Avenue, New York, N. Y.
- Coleman, John W.  
227 Duncan Avenue, Jersey City, N. J.
- Costarella, Renato  
325 Bleecker Street, New York, N. Y.
- Criscuolo, Andrew  
814 West 181st Street, New York, N. Y.
- D'Avella, B. J.,  
167 Parker Street, Newark, N. J.
- Davenport, Renald  
Sweet Valley, Pa.
- Dayharsh, Carroll  
333 West 22nd Street, New York, N. Y.
- Del Vecchio, Henry W.  
1366 73rd Street, Brooklyn, N. Y.
- Edelman, Reuben L.  
26 Cormack Court, Babylon, N. Y.
- Edelstein, Victor H.  
62 East 94th Street, New York, N. Y.
- Edgars, Norman K.  
81 Hillside Avenue, Tenafly, N. J.
- Ellena, Aldo J.  
180 Bergenline Avenue, Union City, N. J.
- Erdtrachter, Jules  
229 Fifth Street, New York City
- Fabrikant, Lawrence  
1986 Clinton Avenue, New York, N. Y.
- Falk, Herbert B.  
709 East 24th Street, Paterson, N. J.
- Fishbein, Isadore Leo  
70 Carroll Street, Paterson, N. J.
- Fisher, Jennie  
314 Bay 10th Street, Brooklyn, N. Y.
- Freedman, Ray M.  
7 West Glen Street, Glen Cove, L. I.
- Fries, Harry  
1049 East 13th Street, Brooklyn, N. Y.
- Ganeless, Percy  
99 North Main Street, Liberty, N. Y.
- Gatov, Louis  
1749 Grand Concourse, New York, N. Y.
- Gerken, Frederick  
133-08 Rockaway Boulevard, South Ozone  
Park, N. Y.
- Ginn, Barnett  
126 East 7th Street, New York, N. Y.
- Glantz, Milton  
355 Second Ave., New York, N. Y.
- Glickfield, Peter J.  
14 Cecil Avenue, Glen Cove, N. Y.
- Gorenberg, David  
690 East 158th Street, New York, N. Y.
- Grasser, George J.  
22 Florida Avenue, Arrochar, S. I.
- Greenfield, Joseph  
222 East 124th Street, New York, N. Y.
- Groves, Reginald D.  
415 Spooner Avenue, Plainfield, N. J.
- Gulker, Jacob H.  
174 Clinton Street, New York, N. Y.
- Guss, Isidore Edward  
1425 Eastern Parkway, Brooklyn, N. Y.
- Hand, Quentin R.  
2533-7th Avenue, New York, N. Y.
- Harrison, Benjamin  
197 Floyd Street, Brooklyn, N. Y.
- Hoyte, Lewis P.  
169 St. Nicholas Ave., c/o Haynes, New  
York, N. Y.
- Hubbard, E. E.,  
42 Second Avenue, Bayshore, L. I.
- Ingegno, H. P.  
521 Atlantic Avenue, Brooklyn, N. Y.
- Iozzia, Theresa C.  
86 Madison Street, Paterson, N. J.
- Ironson, Hyman  
1183 Grand Concourse, New York, N. Y.

- Isgar, William  
95 Barrett Street, Brooklyn, N. Y.
- James, Edith Genevieve  
588 Lenox Avenue, New York, N. Y.
- Kadish, Frank Bernard  
21 South Dean Street, Englewood, N. J.
- Kaplan, Aaron  
93 Granite Street, Brooklyn, N. Y.
- Kaplan, Herbert B.  
185 Bergen Avenue, Jersey City, N. J.
- Kerner, Emanuel M.  
1968 68th Street, Brooklyn, N. Y.
- Kolk, Martin I.  
1550-50th Street, Brooklyn, N. Y.
- La Placa Francis  
316 Monroe Street, Hoboken, N. J.
- Levy, Alexander  
556 Ashford Street, Brooklyn, N. Y.
- Levy, Julian S.  
436 Eastern Parkway, Brooklyn, N. Y.
- Lipkowitz, Irving M.  
621-643 Lefferts Avenue, Brooklyn, N. Y.
- Lo Russo, Joseph F.  
1883 West 13th Street, Brooklyn, N. Y.
- Lubin, Abraham A.  
327 Franklin Avenue, Scranton, Pa.
- Malament, Louis  
316 South Fourth Street, Brooklyn, N. Y.
- Malkin, Max  
75 Linden Street, Passaic, N. J.
- Mallon, Milton  
372 Snediker Avenue, Brooklyn, N. Y.
- Margolies, Raymond Nathan  
119 Lackawanna Avenue, Olyphant, Pa.
- Matuch, Wm. P.  
124-41st Street, Union City, N. J.
- Megibow, Louis  
543-13th Street, West New York, N. J.
- Miceli, Anthony  
273 Ninth Avenue, New York, N. Y.
- Molbegat, Abner  
746 East 2nd Street, Brooklyn, N. Y.
- Oaklander, Isidore  
1239 Simpson Street, New York, N. Y.
- Ortega, Louis B.  
546 West 147th Street, New York, N. Y.
- Patrizio, Silvio F.  
108-21 Union Hall Street, Jamaica, N. Y.
- Pekarsky, Benjamin  
1965 Bryant Avenue, New York, N. Y.
- Pillone, Maria  
123 Lincoln Avenue, Ridgefield Pk, N. J.
- Pitchnick, Bernard  
1737 Pitkin Avenue, Brooklyn, N. Y.
- Race, Clarence  
2 West Main Street, Bay Shore, L. I.
- Reale, Victor A.  
1569-78th Street, Brooklyn, N. Y.
- Reichman, Frances  
648 Faile Street, New York, N. Y.
- Robinson, Abraham  
201 Pulaski Street, Brooklyn, N. Y.
- Rosenberg, Abraham  
4 Hinman Street, Middle Village, L. I.
- Rosenberg, Isidor  
197-10th Street, Long Island City, N. Y.
- Rubenstein, Louis J.  
85 Powell Street, Brooklyn, N. Y.
- Schlagel, Chas. Jr.  
18 Oak Street, Beacon, N. Y.
- Schleider, Meyer K.  
37 West 48th Street, Bayonne, N. J.
- Schmid, Frederick Box 286, Hillsdale, N. J.
- Schubert, Georgiana  
444 North Avenue, Dunellen, N. J.
- Schuchman, David  
210 Foster Avenue, Brooklyn, N. Y.
- Seitzman, Max  
193 Howe Avenue, Passaic, N. J.
- Skasko, Stephen  
300 East 23rd Street, New York, N. Y.
- Soracco, Frank  
15 So. Main Street, Liberty, N. Y.
- Sorensen, Harry C.  
517 East 26th Street, Brooklyn, N. Y.
- Spallucci, Michael  
516 Wheatland Avenue, Bound Brook, N. J.
- Sparacio, C. J.  
194-46th Street, Corona, L. I.
- Spitz, Morris S.  
196 West Broadway, Paterson, N. J.
- Sporn, Arthur  
431 East 83rd Street, New York, N. Y.
- Steiner, David  
336 East 87th Street, New York, N. Y.
- Stopen, Theodore  
406 East 70th Street, New York, N. Y.
- Sugarman, Benjamin  
720 Riverside Drive, New York, N. Y.
- Taylor, Esser O.  
433 So. 7th Avenue, Mount Vernon, N. Y.
- Teicher, Milton  
527 West 135th Street, New York, N. Y.
- Teichholz, Bernard S.  
309 Madison Street, Passaic, N. J.
- Wagman, Meyer  
1203 Westchester Avenue, New York, N. Y.
- Wagner, Harry F.  
8967-214th Street, Queens Village, N. Y.
- Waltz, Hugo J.  
264 Morris Street, Union City, N. J.
- Wang, Sidney  
459 Van Siclen Avenue, Brooklyn, N. Y.
- Weber, Jacob  
502 Jamaica Avenue, Brooklyn, N. Y.
- Wilentz, Alexander  
28 West Palisade Avenue, Englewood, N. J.
- Yukelson, Arthur W.  
1094 Bryant Avenue, New York, N. Y.

Zunz, Edward  
542-28th Street, Union City, N. J.  
Zweig, Arthur  
86 West 103rd Street, New York, N. Y.  
(113)

## FRESHMEN UNIVERSITY CLASS

Benjamin, Irving  
35 Brookside Place, New Rochelle, N. Y.  
Berest, Joseph  
2335 Walton Avenue, New York, N. Y.  
Betzler, Clifford William  
194-54 114th Road, St. Albans, N. Y.  
Canepa, John Joseph  
111 Anderson Avenue, Scarsdale, N. Y.  
Carlat, Bernard  
1914 East 18th Street, Brooklyn, N. Y.  
de Domenico, Ida  
287 Bleecker Street, New York, N. Y.  
Eichhorn, Ervin Alfred Pearl River, N. Y.  
Eisenberg, Julius  
313 Steinway Avenue, Astoria, L. I.  
Gaer, Bertram  
641 Lafayette Avenue, Brooklyn, N. Y.  
Henkin, Samuel  
919 Forest Avenue, New York, N. Y.  
Jacobs, Julius  
1281 Eastern Parkway, Brooklyn, N. Y.  
Kucker, George  
83 First Street, Elizabeth, N. J.  
Lifshitz, David  
575 Riverdale Avenue, Brooklyn, N. Y.  
Lichtenberg, Raymond  
226 Adams Street, Hoboken, N. J.  
Massarsky, Solomon  
16 Second Street, Weehawken, N. J.  
Miller, Sylvia  
18 Central Avenue, Everett, Mass.  
Moskowitz, Herman  
135 W. Kingsbridge Road, New York, N. Y.  
Muller, Alfred Carl  
147-16 17th Road, Whitestone, N. Y.  
Nochimow, Eliezer  
489 Willoughby Avenue, Brooklyn, N. Y.  
Noll, William Frederick  
2502 South Fairfield Avenue, Fort Wayne,  
Ind.  
Pagano, Alphonse F.  
213 Van Brunt Street, Brooklyn, N. Y.  
Peskin, Benjamin  
179 East 101st Street, New York, N. Y.  
Sacharow, Samuel S.  
7111-20th Avenue, Brooklyn, N. Y.  
Sadinsky, Hyman Benjamin  
60 Maple Street, Norwich, Conn.  
Seldeen, Israel  
204 Broadway, Amityville, L. I.  
Seligman, Morris William  
317 East 27th Street, New York, N. Y.

Simcovitz, Robert  
848 Belmont Avenue, Springfield, Mass.  
Stefano, Eli 33 Thames Street, Norwich, Conn.  
Stevens, Eli  
450 Bay Ridge Avenue, Brooklyn, N. Y.  
Valenti, Jessie  
7612-13th Avenue, Brooklyn, N. Y.  
(30)

## SECOND YEAR COLLEGE CLASS

Abramoff, Adolph  
221 East 66th Street, New York, N. Y.  
Adler, Solomon  
739 East 6th Street, New York, N. Y.  
Amazon, Maxwell  
320 Sea Breeze Avenue, Brooklyn, N. Y.  
Amster, Herman  
693 Monroe Street, Brooklyn, N. Y.  
Appelbaum, Gershon  
25 West 112th Street, c/o Schneidman,  
New York, N. Y.  
Aronowitz, Louis  
469 West 34th Street, New York, N. Y.  
Atkin, Nathan  
155 Audobon Avenue, New York, N. Y.  
Avirom, Morris  
358 Hart Street, Brooklyn, N. Y.  
Baizer, Louis  
1146 Union Avenue, New York, N. Y.  
Balaban, Chaiah  
333 Sheffield Avenue, Brooklyn, N. Y.  
Becker, Harry  
2112 Hanison Avenue, New York, N. Y.  
Becker, Joseph G.  
25-35 Blake Avenue, Brooklyn, N. Y.  
Beeber, Joe  
134 Clymer Street, Brooklyn, N. Y.  
Bennett, Benjamin H.  
233 South 2nd Street, Brooklyn, N. Y.  
Bergman, Israel  
115 St. Marks Place, New York, N. Y.  
Berkowitz, Bernard  
64 Wadsworth Terrace, New York, N. Y.  
Berkowitz, Simon  
92 Rivington Street, New York, N. Y.  
Berman, Louis L.  
566 Beck Street, New York, N. Y.  
Bernstein, Charles Leo  
216 East 6th Street, New York, N. Y.  
Bernstein, Jesse L.  
1233 Simpson Street, New York, N. Y.  
Bershatsky, Joseph  
651 Marcy Avenue, Brooklyn, N. Y.  
Billier, Moses Leon  
115 Columbia Street, New York, N. Y.  
Bode, Emma  
120 French Street, New Brunswick, N. J.  
Bolker, Abraham  
1926 Pacific Street, Brooklyn, N. Y.

- Botti, Nicholas Albert  
 509 Greenwood Avenue, Brooklyn, N. Y.
- Boxer, Hyman  
 1709 Bathgate Avenue, New York, N. Y.
- Boxer, Michael  
 1997 Hughes Avenue, New York, N. Y.
- Brensilver, David I.  
 637 Tinton Avenue, New York, N. Y.
- Bronstein, Leo  
 201 Varet Street, Brooklyn, N. Y.
- Carneol, Herman  
 324 East 46th Street, Brooklyn, N. Y.
- Chaifetz, Morris  
 49 Rutgers Street, New York, N. Y.
- Chait, Reuben  
 352 West 117th Street, New York, N. Y.
- Charney, Abraham  
 1255 Blake Avenue, Brooklyn, N. Y.
- Chase, Irving  
 890 Fox Street, New York, N. Y.
- Chasman, Solomon  
 132-17th Street, Brooklyn, N. Y.
- Chasnow, Martin  
 890 Fox Street, New York, N. Y.
- Cheresch, Edward  
 374 South 2nd Street, Brooklyn, N. Y.
- Cipriano, Robert M.  
 512 Greene Avenue, Brooklyn, N. Y.
- Cody, Mary Rose  
 New Canaan, Conn.
- Cohen, Abraham  
 647 Fox Street, New York, N. Y.
- Cohen, Abe  
 216 East 56th Street, Brooklyn, N. Y.
- Cohen, Harry L.  
 318 Throop Avenue, Brooklyn, N. Y.
- Cohen, Milton  
 2518 Clarendon Road, Brooklyn, N. Y.
- Cohen, Philip  
 1532 Longfellow Avenue, New York, N. Y.
- Cohen, Sam  
 69 Hinsdale Street, Brooklyn, N. Y.
- Cohen, Sigmund  
 1549-46th Street, Brooklyn, N. Y.
- Cohen, Solomon  
 43 Eldridge Street, New York, N. Y.
- Daniel, Blueford Fowler  
 Hogansville, Ga.
- David, Solomon  
 117 South 4th Street, Brooklyn, N. Y.
- De Filippis, Americo Joseph  
 2 B King Street, New York, N. Y.
- de Lalla, Carmelita  
 704 Blecker Street, Utica, N. Y.
- di Bella, Joseph V.  
 157-17th Street, West New York, N. J.
- Dubinsky, Jack  
 1566 St. Marks Avenue, Brooklyn, N. Y.
- Dubnick, Samuel  
 1838 Park Place, Brooklyn, N. Y.
- Dworsky, Nathan  
 62 West 124th Street, New York, N. Y.
- Eisenberg, Max  
 1284 Amsterdam Avenue, New York, N. Y.
- Eisler, Abraham H.  
 1738 Union Street, Brooklyn, N. Y.
- Elkowitz, Paul  
 368 East 4th Street, New York, N. Y.
- Epstein, Harry  
 484 Claremont Parkway, New York, N. Y.
- Errante, Frank  
 389 Shepherd Avenue, Brooklyn, N. Y.
- Feuerstein, Abraham  
 481 Warwick Street, Brooklyn, N. Y.
- Finkelstein, Morris  
 1047 Avenue St. John, New York, N. Y.
- Florence, Paul A.  
 213 Pomander Road, Mineola, L. I.
- Folcarelli, Urbino  
 108 East 87th Street, New York, N. Y.
- Fox, Jerry A.  
 879 Elmsere Place, New York, N. Y.
- Franzblau, Max  
 2028 Gleason Avenue, Unionport, N. Y.
- Fried, Max Bernard  
 39 Forest Avenue, West Englewood, N. J.
- Fried, Morris David  
 164 Havemeyer Street, Brooklyn, N. Y.
- Friedman, Jacob  
 89 Aldine Street, Newark, N. J.
- Friedman, Leonard  
 105 Post Avenue, New York, N. Y.
- Friedman, Nathan F.  
 615 West 162nd Street, New York, N. Y.
- Fuchs, Louis  
 343 East 16th Street, New York, N. Y.
- Garfinkle, Arthur  
 48 East 15th Street, Bayonne, N. J.
- Gargiulo, Dominick  
 1869 West 10th Street, Brooklyn, N. Y.
- Geronimus, Herman J.  
 674-49th Street, Brooklyn, N. Y.
- Gilbert, Jacob  
 120 West 94th Street, New York, N. Y.
- Gilliar, F. J.  
 53 Grace Avenue, Great Neck, N. Y.
- Gimbel, William B.  
 565 Cleveland Street, Brooklyn, N. Y.
- Gioia, Michael A.  
 1115 Avenue Z, Brooklyn, N. Y.
- Glance, Abraham Louis  
 853 East 170th Street, New York, N. Y.
- Glazer, Louis Alfred  
 1275 Grant Avenue, New York, N. Y.
- Glick, Meyer  
 215 East 4th Street, New York, N. Y.
- Goldberg, Nathan  
 529 Hinsdale Street, Brooklyn, N. Y.

- Goldfarb, Harold  
1011 Belmont Avenue, Brooklyn, N. Y.
- Goldman, Hirsh J.  
200 Vernon Street, Brooklyn, N. Y.
- Goldman, Joseph  
447 Sheffield Avenue, Brooklyn, N. Y.
- Goldrad, H.  
1491 Brook Avenue, New York, N. Y.
- Goldstein, Samuel  
53 Liberty Avenue, Brooklyn, N. Y.
- Goozman, Max  
422 East 50th Street, New York, N. Y.
- Goran, Philip  
624 East 6th Street, New York, N. Y.
- Gorset, Abraham Frank  
175 Middleton Street, Brooklyn, N. Y.
- Greenberg, Samuel  
719 Sackman Street, Brooklyn, N. Y.
- Groopman, Harry  
Woodbourne, Sullivan Co., N. Y.
- Grossman, Max  
7 Bay 22nd Street, Brooklyn, N. Y.
- Gullo, Nancy  
148 Hester Street, New York, N. Y.
- Halfin, Herman  
1400 Clinton Avenue, New York, N. Y.
- Halpert, Isidore  
1762-62nd Street, Brooklyn, N. Y.
- Heckman, Alexander  
1763 West 7th Street, Brooklyn, N. Y.
- Heller, Bella  
1379 Teller Avenue, New York, N. Y.
- Hirschman, Hyman  
16-18 East 107th Street, New York, N. Y.
- Hochstadt, Samuel  
508 Williams Avenue, Brooklyn, N. Y.
- Howard, C. Francis  
39 Dewey Avenue, Huntington, L. I.
- Isaacs, Melville  
53 West 114th Street, New York, N. Y.
- Isikowitz, Bernard  
426 Snediker Avenue, Brooklyn, N. Y.
- Israel, Leon H.  
319 Cherry Street, New York, N. Y.
- Itzkowitz, Harry  
1717-60th Street, Brooklyn, N. Y.
- Itzkowitz, Isidore  
602 Junius Street, Brooklyn, N. Y.
- Jacobowitz, Jacob  
336 East 55th Street, Brooklyn, N. Y.
- Janiger, Phoebe  
47 West 112th Street, New York, N. Y.
- Kannry, Irving  
48 East 103rd Street, New York, N. Y.
- Kaplan, Julius  
1382 College Avenue, New York, N. Y.
- Katz, Aaron  
3802-12th Avenue, Brooklyn, N. Y.
- Kerachsky, Isador  
Leonard Bridge, Conn.
- Keylin, Solomon  
1361 Intervale Avenue, New York, N. Y.
- Klinger, Bernard  
1382 St. John's Place, Brooklyn, N. Y.
- Klinger, Sol  
689 Beck Street, New York, N. Y.
- Koch, Karl  
219 East 28th Street, New York, N. Y.
- Komisaruk, William  
367 East 179th Street, New York, N. Y.
- Krause, William  
109 Myrtle Avenue, Port Jefferson, N. Y.
- Kreisel, Jacob  
373 Monroe Street, Brooklyn, N. Y.
- Kunitz, Edward A.  
1280 Walton Avenue, New York, N. Y.
- Kvares, Daniel  
850 Beck Street, New York, N. Y.
- Lacovara, Vincent A.  
210 East 7th Street, Brooklyn, N. Y.
- Lager, Samuel  
2079 Mohegan Avenue, New York, N. Y.
- Langberg, Isidor  
1675 Park Place, Brooklyn, N. Y.
- Lazarowitz, Abraham  
557 Timpson Place, New York, N. Y.
- Lefrak, David  
1522 Webster Avenue, New York, N. Y.
- Leitner, Yetta  
1014 Eastern Parkway, Brooklyn, N. Y.
- Lehrer, Arthur M.  
1369 East 29th Street, Brooklyn, N. Y.
- Lennon, Mary  
Pawling, N. Y.
- Lev, Max  
419 West 115th Street, Apt. 22, New York, N. Y.
- Levine, Esro  
1056 Kelly Street, New York, N. Y.
- Levine, Jesse  
Woodridge, N. Y.
- Levinson, Meyer Jacob  
584 East 137th Street, New York, N. Y.
- Lewis, David K.  
290 West End Avenue, New York, N. Y.
- Lindeman, Henry O.  
109-36 132nd Street, Richmond Hill, N. Y.
- Longano, Carmine  
554 Lorimer Street, Brooklyn, N. Y.
- Lortz, Edgar M.  
279 West Main Street, Ilion, N. Y.
- Luntz, Stanley  
1108 Clarkson Avenue, Brooklyn, N. Y.
- Lyons, Roland  
Lake Placid, N. Y.
- McGraw, Harvey B.  
142 West 10th Street, New York, N. Y.
- McKaba, Arthur E.  
134 State Street, Brooklyn, N. Y.
- Manson, Abraham  
63 Columbia Street, New York, N. Y.

- Margotta, Anna L.  
169 Union Avenue, New Rochelle, N. Y.
- Martocci, A.  
442 East 16th Street, New York, N. Y.
- Miceli, A. William  
784 Bushwick Avenue, Brooklyn, N. Y.
- Miller, Benjamin  
1347-40th Street, Brooklyn, N. Y.
- Miller, Joseph  
98 Louisa Street, Brooklyn, N. Y.
- Miller, Mina  
1823 Mohegan Avenue, New York, N. Y.
- Montane, Nestor Marrero  
561 West 147th Street, New York, N. Y.
- Moskovitz, Jerome L.  
2132 Grand Avenue, New York, N. Y.
- Mucelli, Gaetano J.  
288 Essex Street, Brooklyn, N. Y.
- Musso, Frank  
522-9th Street, Brooklyn, N. Y.
- Navazio, Louis  
321 Convent Avenue, New York, N. Y.
- Neveloff, Aaron  
46 Hoyt Street, Brooklyn, N. Y.
- Novosolsky, Henry  
523 West 138th Street, New York, N. Y.
- Nussbaum, Henrietta  
211 East Broadway, New York, N. Y.
- Okrent, John  
3019 Ocean Spray Avenue, Brighton Beach,  
Brooklyn, N. Y.
- Olenick, Jacob  
1046 Rutland Road, Brooklyn, N. Y.
- Ornstrat, Leon  
980 Fox Street, c/o Keeler, New York, N. Y.
- Orso, Anthony F.  
R. F. D. No. 2, Hempstead, L. I.
- Oxman, William  
365 Dumont Avenue, Brooklyn, N. Y.
- Padow, Meyer  
1024 East 14th Street, Brooklyn, N. Y.
- Pagano, Dominick  
128 East Broadway, New York, N. Y.
- Palen, Richard G.  
44 Paulding Avenue, Cold Spring, N. Y.
- Picheny, Bernard  
213 Clinton Street, New York, N. Y.
- Pierson, Sanford R. Liberty, N. Y.
- Polizzi, Fred E.  
230 East 114th Street, New York, N. Y.
- Pollack, Jacob P.  
1023 Lafayette Avenue, Brooklyn, N. Y.
- Pollack, Sam  
310 East 4th Street, New York, N. Y.
- Pollock, Lawrence  
1556 Hoe Avenue, c/o Salop, New York, N. Y.
- Pomerantz, Nathan Joseph  
1637-44th Street, Brooklyn, N. Y.
- Ponticello, Francis A.  
500 Riverside Drive, New York, N. Y.
- Pumo, Anthony  
224 Suydam Street, Brooklyn, N. Y.
- Rabinowitz, Samuel  
445 Rockaway Parkway, Brooklyn, N. Y.
- Rader, Dora Lillian  
957 Fox Street, New York, N. Y.
- Raia, Emanuel J.  
1396 Herkimer Street, Brooklyn, N. Y.
- Reifman, Isaac  
1395 Bristow Street, New York, N. Y.
- Reiss, William  
1061 Trinity Avenue, New York, N. Y.
- Reiter, Morris  
156 Avenue C, New York, N. Y.
- Rich, Patrick  
21 Evergreen Avenue, Rye, N. Y.
- Richert, Edward V.  
Jericho Turnpike, New Hyde Park, N. Y.
- Rinaldi, Charles D.  
1362-64th Street, Brooklyn, N. Y.
- Rosati, John  
9125-96th Street, Woodhaven, N. Y.
- Rosen, Julius  
28 Warren Street, Ellenville, N. Y.
- Rosenberg, Harry  
123 Rockaway Parkway, Brooklyn, N. Y.
- Rosenthaler, Malvin  
202-16th Street, College Point, N. Y.
- Rossi, James  
370 Metropolitan Avenue, Brooklyn, N. Y.
- Rothenberg, David  
537 Powell Street, Brooklyn, N. Y.
- Rothfeld, Emanuel  
35 East 110th Street, New York, N. Y.
- Sabella, Vincenza J.  
6023-17th Avenue, Brooklyn, N. Y.
- Sahr, Sydney  
3443-62nd Street, Woodside, L. I.
- Salerno, Anthony Rocco  
229 East 5th Street, New York, N. Y.
- Satz, Lola  
16 East 106th Street, New York, N. Y.
- Saltzman, David  
108 Moore Street, Brooklyn, N. Y.
- Samuels, George  
1526 Lincoln Place, Brooklyn, N. Y.
- Sanders, Bernard  
7426-7th Avenue, Brooklyn, N. Y.
- Santagada, Francis  
81 City Terrace, Newburgh, N. Y.
- Sarawaisky, Isadore  
20 Bergen Place, Jamaica, N. Y.
- Schames, Louis  
507 Ashford Street, Brooklyn, N. Y.
- Schechner, Louis  
1223-55th Street, Brooklyn, N. Y.

- Schein, Henry  
244 Roebling Street, Brooklyn, N. Y.
- Schlosberg, Nathan  
4 East 108th Street, New York, N. Y.
- Schmitt, Fred  
15 Rochester Avenue, Brooklyn, N. Y.
- Schneider, Milton S.  
1059 First Avenue, New York City
- Schrage, Joseph  
1568 Macombs Road, New York, N. Y.
- Schuker, Litman  
362 Grand Street, Brooklyn, N. Y.
- Schultz, George  
306 East 73rd Street, New York, N. Y.
- Segal, Benjamin  
8705 Bay Parkway, Brooklyn, N. Y.
- Serote, Nathan  
510 West 184th Street, New York, N. Y.
- Shaffet, Robert  
7620 Rockaway Boulevard, Woodhaven, N. Y.
- Shaftan, Charles S.  
811 Walton Avenue, New York, N. Y.
- Shapiro, Arthur  
312 East 8th Street, New York, N. Y.
- Shapiro, Daniel  
1518 East 172nd Street, New York, N. Y.
- Shaw, Alex  
731 Union Avenue, New York, N. Y.
- Sherman, Barney Bernard  
16 Van Wyck Avenue, Jamaica, N. Y.
- Shucard, Morris  
904 Stone Avenue, Brooklyn, N. Y.
- Sidelsky, Samuel  
237 East 93rd Street, Brooklyn, N. Y.
- Siegal, Max  
228 South Street, Brooklyn, N. Y.
- Siegel, Morris  
2017 La Fontaine Avenue, New York, N. Y.
- Sileo, Mario  
1525 75th Street, Brooklyn, N. Y.
- Silver, Benjamin  
59 West 73rd Street, c/o Goodkind, New York, N. Y.
- Silverman, Jacob Ronald  
136 West 170th Street, New York, N. Y.
- Singer, Nathan  
988 Simpson Street, New York, N. Y.
- Sirulnick, Ralph  
2010 Ocean Avenue, Brooklyn, N. Y.
- Slavin, Isadore  
141 Second Avenue, New York, N. Y.
- Slutsky, Ben  
65 Norfolk Street, New York, N. Y.
- Smith, Edward Joseph  
1641 East 9th Street, Brooklyn, N. Y.
- Smith, Irving Hugh  
9 Morningside Avenue, Upper Montclair, N. J.
- Smolowitz, Bernard  
29 West 119th Street, New York, N. Y.
- Sorin, Mac  
2166 Eighth Avenue, New York, N. Y.
- Sorkenn, Ralph  
30 West 75th Street, New York, N. Y.
- Speller, C. W.  
22 Wyandotte Avenue, Highland Falls, N. Y.
- Steinberg, Eva  
2867 West 27th Street, Brooklyn, N. Y.
- Stillerman, Harry L.  
542 Sheephead Bay Road, Brooklyn, N. Y.
- Strassberg, Sidney  
544 St. Paul's Place, New York, N. Y.
- Sussman, Henry  
1956 Crotona Parkway, New York, N. Y.
- Tabachnick, Max  
178 Hooper Street, Brooklyn, N. Y.
- Talenbloom, Julius  
220 Campbell Avenue, Revere, Mass.
- Tandlich, Henry  
3124 Mermaid Avenue, Coney Island, N. Y.
- Tansky, David  
810 Hunts Point Avenue, New York, N. Y.
- Tapola, Lucille  
65 Wadsworth Terrace, New York, N. Y.
- Tekel, Benjamin  
617 East 11th Street, New York, N. Y.
- Thimble, Rudolph  
40-19 24th Street, Long Island City, N. Y.
- Tobis, Abraham  
832 Whitlock Avenue, New York, N. Y.
- Tolkoff, Paul  
8-10 East 107th Street, New York, N. Y.
- Tracy, Thomas  
33 Maple Place, Port Chester, N. Y.
- Tuman, Robert  
5323 Church Avenue, Brooklyn, N. Y.
- Turetsky, David  
118-17 Liberty Avenue, Richmond Hill, N. Y.
- Valentino, Louis  
74 President Street, Brooklyn, N. Y.
- Veprovsky, Lawrence L.  
1430 First Avenue, New York, N. Y.
- Verdrager, David  
541 Flushing Avenue, Brooklyn, N. Y.
- Vitale, Leonida P.  
1637-68th Street, Brooklyn, N. Y.
- Vix, George  
537 East 144th Street, New York, N. Y.
- Vogel, Joseph  
132-03 Cronston Avenue, Belle Harbor, L. I.
- Waldinger, David  
318 Rochester Avenue, Brooklyn, N. Y.
- Waterbury, Whitford N.  
1665 Grand Concourse, New York, N. Y.
- Weinberg, Rubin  
224 South 3rd Street, Brooklyn, N. Y.

- Weiner, Irving J.  
152 West 176th Street, New York, N. Y.
- Weinstein, Isadore  
860 Southern Boulevard, New York, N. Y.
- Weinstein, Milton  
236 Clinton Street, New York, N. Y.
- Weiss, Alfred S.  
641 Vanderbilt Avenue, Brooklyn, N. Y.
- Wieder, Irving P.  
3625 Mermaid Avenue, Brooklyn, N. Y.
- Wolin, Louis  
9600 Roosevelt Avenue, Corona, L. I.
- Yanowitz, Irving  
1515-45th Street, Brooklyn, N. Y.
- Yosepowitz, Joseph  
1336 Brook Avenue, New York, N. Y.
- Yudcovich, Jack  
700 East 161st Street, New York, N. Y.
- Zelenko, Alexander D.  
389 Beech Street, Teaneck, N. J.
- Zeltzer, Irving  
553 Williams Avenue, Brooklyn, N. Y.
- Zirin, Benjamin  
75 East 109th Street, New York, N. Y.  
(270)
- FIRST YEAR COLLEGE CLASS
- Abrams, Michael Irving  
108-21st Street, West New York, N. J.
- Ackerman, Ruth  
749 Kelly Street, New York, N. Y.
- Allegra, Frank  
65 Webster Avenue, Long Island City, N. Y.
- Alperstein, Hyman  
216 East 10th Street, New York, N. Y.
- Anderson, Arthur Gustave  
4 Travers Avenue, Mamaroneck, N. Y.
- Asbell, Joseph  
1420 Nostrand Avenue, Brooklyn, N. Y.
- Bacchiani, Torquato  
343 East 57th Street, New York, N. Y.
- Bailey, William Lounsbury  
80 W. Newell Avenue, Rutherford, N. J.
- Bambara, Aurelius John  
1271-42nd Street, Brooklyn, N. Y.
- Bardfeld, Gustave  
9720 Jamaica Avenue, Woodhaven, N. Y.
- Barth, Sam  
502 West 159th Street, New York, N. Y.
- Bartha, John Anthony, Jr.  
165 Hamilton Street, New Brunswick, N. J.
- Bauer, Max  
400-8th Street, West New York, N. J.
- Bauer, Paul Edgar  
Westbury, L. I.
- Berkowitz, Bernard  
109 Eldridge Street, New York, N. Y.
- Beyer, Isadore  
Spring Glen, N. Y.
- Bittar, Albert  
5502-6th Avenue, Brooklyn, N. Y.
- Blacker, Morris  
Box 96, High Falls, N. Y.
- Blatt, Jacob  
3561 De Kalb Avenue, New York, N. Y.
- Blois, Bernard E.  
34 King Street, New York, N. Y.
- Blumberg, Lester  
79 West 25th Street, Bayonne, N. J.
- Boxer, Meyer  
131 Rockaway Parkway, Brooklyn, N. Y.
- Braswell, James Le Roy  
89 Seventh Avenue, Brooklyn, N. Y.
- Britton, John T.  
479 Broadway, Long Branch, N. J.
- Bronzo, Ralph  
2070 West 9th Street, Brooklyn, N. Y.
- Bussle, Harry  
1301 Fulton Avenue, New York, N. Y.
- Calabrese, Savino Daniel  
826 Second Avenue, New York, N. Y.
- Capobianco, Domenick Thomas  
506 Brook Avenue, New York, N. Y.
- Carroll, Harry  
468 Wyona Street, Brooklyn, N. Y.
- Cassara, Anthony  
1121-40th Street, Brooklyn, N. Y.
- Charnes, Randolph  
495 East 174th Street, New York, N. Y.
- Chernoff, Max Hyman  
607 Hopkinson Avenue, Brooklyn, N. Y.
- Cimino, John Anthony  
485 Henry Street, Brooklyn, N. Y.
- Cipnic, Herman  
111-11 Liberty Avenue, Richmond Hill, N. Y.
- Cohen, Alexander  
114 Van Sicklen Avenue, Brooklyn, N. Y.
- Cohen, Bernard M.  
2001 Douglass Street, Brooklyn, N. Y.
- Cohen, David  
100 Wegman Parkway, Jersey City, N. J.
- Cohen, Harry  
561 West 163rd Street, New York, N. Y.
- Cohen, Henry  
325 Wallabout Street, Brooklyn, N. Y.
- Cohen, Isaac  
591 East 141st Street, New York, N. Y.
- Cohen, Meyer  
537 West 141st Street, New York, N. Y.
- Cohen, Sidney  
450 East 184th Street, New York, N. Y.
- Cohen, William  
726 Rockaway Avenue, Brooklyn, N. Y.
- Coppola, Angelo  
34-21 91st Street, Jackson Heights, N. Y.
- Costabile, Hugo  
765 East 226th Street, New York, N. Y.
- Crafa, Mary  
9412 Van Wyck Avenue, Richmond Hill,  
N. Y.



- Davis, Benjamin Richard  
1771-57th Street, Brooklyn, N. Y.
- Decter, Jacob  
11 McDonough Street, Brooklyn, N. Y.
- Denker, Benjamin  
496 East 174th Street, New York, N. Y.
- Diamondstein, Joseph  
1506 Walton Avenue, New York, N. Y.
- Dicker, Morris  
228 Sixth Street, New York, N. Y.
- Diecidue, Ignatius  
684 Flushing Avenue, Brooklyn, N. Y.
- Dier, Philip  
1028 Simpson Street, New York, N. Y.
- Dinin, Jack  
139 Division Street, New York, N. Y.
- Dogan, Max  
617 Knickerbocker Avenue, Brooklyn, N. Y.
- d'Orbessan, Fernand Matthew, Jr.  
1259-103rd Street, Ozone Park, L. I.
- Duchovne, Joseph  
36 West 112th Street, New York, N. Y.
- Dwoskin, Barney William  
2930 West 36th Street, Coney Island, N. Y.
- Eisenberg, Dorothy L.  
1252a Lincoln Place, Brooklyn, N. Y.
- Ellenson, Barnett  
868 East 172nd Street, New York, N. Y.
- Epstein, Samuel Irving  
315 East 102nd Street, New York, N. Y.
- Failla, Silvio Joseph  
740 Main Street, North Bergen, N. J.
- Falk, Benjamin  
312 Madison Street, New York, N. Y.
- Fazio, Ignatius  
3629 White Plains Avenue, New York, N. Y.
- Feldman, Morris  
120 Bristol Street, Brooklyn, N. Y.
- Fermaglich, Joseph Louis  
605 Metropolitan Avenue, Brooklyn, N. Y.
- Fialkow, Ben  
1790 Sterling Place, Brooklyn, N. Y.
- Firemark, Samuel  
107-57 Union Hall Street, Jamaica, N. Y.
- Flaherty, Sister M. Oswald  
Marywood College, Scranton, Pa.
- Flaumenbaum, Irving  
1454 East 14th Street, Brooklyn, N. Y.
- Fleissig, Arthur  
378 East 10th Street, New York, N. Y.
- Flexer, Isidore  
253 West 111th Street, New York, N. Y.
- Form, Milton  
1828 Myrtle Avenue, Brooklyn, N. Y.
- Frankel, Isidore Isaac  
156 Second Avenue, New York, N. Y.
- Frankfort, Morris  
1566 Macombs Road, New York, N. Y.
- Fried, Emanuel  
1975 Mapes Avenue, New York, N. Y.
- Friedberg, Irving  
522 Christopher Avenue, Brooklyn, N. Y.
- Gellar, Henry  
238 Barrett Street, Brooklyn, N. Y.
- Getzlek, George  
1125 Howard Avenue, Utica, N. Y.
- Gitlin, Benjamin  
495 East 173rd Street, New York, N. Y.
- Glick, Percy  
639 Banner Avenue, Brooklyn, N. Y.
- Gluck, Morton  
1560 Amsterdam Avenue, New York, N. Y.
- Godlin, Abraham  
Woodbourne, N. Y.
- Gold, Morris  
1096 West Farms Road, New York, N. Y.
- Goldberg, Harry  
311 West 14th Street, New York, N. Y.
- Goldfarb, Samuel  
439 West 40th Street, New York, N. Y.
- Gordon, Martin  
608 Schenck Avenue, Brooklyn, N. Y.
- Govendy, Anna Belle  
835 South Townsend Street, Syracuse, N. Y.
- Gralewski, Walter Joseph  
757-41st Street, Brooklyn, N. Y.
- Greenstein, Edward  
593 Miller Avenue, Brooklyn, N. Y.
- Gregorczyk, Leon Andrew  
271 Jackson Avenue, Jersey City, N. J.
- Gressey, Henry  
31-14 36th Street, Astoria, N. Y.
- Guagliardo, Vincent Francis  
28 Harrison Avenue, Monson, Mass.
- Haimowitz, Benjamin  
564 Ashford Street, Brooklyn, N. Y.
- Hamburg, David  
1425 Vyse Avenue, New York, N. Y.
- Heller, Harry  
598 Snediker Avenue, Brooklyn, N. Y.
- Herwolsky, Philip  
1571 St. Marks Avenue, Brooklyn, N. Y.
- Hickman, Louis Harry  
145 West 98th Street, New York, N. Y.
- Hill, Paul Donald  
210 West 138th Street, New York, N. Y.
- Hirschmann, Jonas  
52 Tonnele Avenue, Jersey City, N. J.
- Holzman, Jack  
39-26 62nd Street, Woodside, N. Y.
- Hosking, Carl Yanzea  
Washingtonville, N. Y.
- Huber, Henry George  
213 Euclid Avenue, Ridgefield Park, N. J.
- Huger, Charles  
1421 Crotona Avenue, New York, N. Y.
- Hurwitz, Myer  
1402 South McBride Street, Syracuse, N. Y.

- Hutter, Isidore  
1291 Eastern Parkway, Brooklyn, N. Y.
- Israel, Samuel  
470 Snediker Avenue, Brooklyn, N. Y.
- Jablin, Michael Marvin  
1310 Union Street, Brooklyn, N. Y.
- Jackson, Joseph  
948 Tiffany Street, New York, N. Y.
- Jacobi, Marvin Stanley  
210 East 3rd Street, New York, N. Y.
- Jacobs, Frank  
303 Broome Street, New York, N. Y.
- Jurow, Louis  
Mongaup Valley, Sullivan Co., N. Y.
- Kaufman, George Sam  
569 Saratoga Avenue, Brooklyn, N. Y.
- Kempf, Charles Edwin  
342 Etna Street, Brooklyn, N. Y.
- Kessler, Nathan  
227 Ashburton Avenue, Yonkers, N. Y.
- Kinishinsky, Joseph  
2035-60th Street, Brooklyn, N. Y.
- Klorman, Joseph  
152 East 96th Street, Brooklyn, N. Y.
- Kobelivker, Joseph  
734 Saratoga Avenue, Brooklyn, N. Y.
- Koretsky, Leon  
699 Willoughby Avenue, Brooklyn, N. Y.
- Koslowsky, David  
1967-71st Street, Brooklyn, N. Y.
- Kosowsky, Milton Stanley  
52 Summer Street, New London, Conn.
- Kossove, Albert  
972-45th Street, Brooklyn, N. Y.
- Kressel, Marcus  
171 Essex Street, New York, N. Y.
- Kyzz, Anton Louis  
30-70 45th Street, Astoria, N. Y.
- Lacovara, George  
754 East 215th Street, New York, N. Y.
- Lauria, Anthony  
784 West Side Avenue, Jersey City, N. J.
- Lerman, Nathaniel  
1187 Eastern Parkway, Brooklyn, N. Y.
- Lerner, Isadore  
50 East Third Street, New York, N. Y.
- Levin, Joseph  
12 Perkins Avenue, Oceanside, L. I.
- Levine, Theodore  
371 Crown Street, Brooklyn, N. Y.
- Liberman, Joseph Rudolph  
1061 Intervale Avenue, New York, N. Y.
- Liebowitz, Harry  
1348 Clinton Avenue, New York, N. Y.
- Lissman, Harold  
2073 Davidson Avenue, New York, N. Y.
- Loscalzo, Joseph  
125-46th Street, Corona, N. Y.
- Lowentman, Julius  
115 East 114th Street, New York, N. Y.
- McDavid, Sydney  
801 Freeman Street, New York, N. Y.
- McQueen, Wells Duncan, Jr.  
107 Linden Avenue, Middletown, N. Y.
- Maffia, Joseph J.  
1156 Second Avenue, New York, N. Y.
- Maggio, John Salvatore  
107 Ridgewood Avenue, Brooklyn, N. Y.
- Maisel, Milton  
247 Wadsworth Avenue, New York, N. Y.
- Mandel, Charles  
341 Wythe Avenue, Brooklyn, N. Y.
- Mandelblit, Morris Mordechai  
788 East 175th Street, New York, N. Y.
- Manfre, Stephen  
204 Baltic Street, Brooklyn, N. Y.
- Mariani, Faustina  
3350 White Plains Avenue, New York, N. Y.
- Marion, Bernard  
604 West 191st Street, New York, N. Y.
- Marra, Joseph R.  
11 Ohio Avenue, Port Washington, N. Y.
- Marshall, Lillian  
229 East 119th Street, New York, N. Y.
- Matragrano, Anthony John  
Bedford Hills, N. Y.
- Matthias, Eulalie  
308 West 129th Street, New York, N. Y.
- Mazie, Jack  
224 Avenue A, New York, N. Y.
- Mazur, Samuel  
33 Montgomery Street, New York, N. Y.
- Megna, John  
1080 Sutter Avenue, Brooklyn, N. Y.
- Meiselman, Harold Engel  
9 Northern Avenue, New York, N. Y.
- Miller, Bernard  
1450 Bryant Avenue, New York, N. Y.
- Miller, Edson Wilbur  
Highland Mills, N. Y.
- Miller, Samuel  
341 Riverdale Avenue, Brooklyn, N. Y.
- Millner, Samuel  
73 Grafton Street, Brooklyn, N. Y.
- Mininberg, Harry  
909 Kelly Street, New York, N. Y.
- Mordente, Constance  
423 East 122nd Street, New York, N. Y.
- Mordente, Josephine  
423 East 122nd Street, New York, N. Y.
- Moroch, David  
2116-66th Street, Brooklyn, N. Y.
- Murdock, Peter C.  
25 Amsterdam Place, Mount Vernon, N. Y.
- Mussawir, Alfred  
436-45th Street, Brooklyn, N. Y.
- Naftal, Benjamin Harold  
329 East 94th Street, New York, N. Y.

- Napoliello, Joseph Francis  
21 Grace Street, Jersey City, N. J.
- Nemiroff, Max Milton  
1220-45th Street, New York, N. Y.
- Nestampower, Morris  
485 East 95th Street, Brooklyn, N. Y.
- Nieparent, Morris  
63 East 118th Street, New York, N. Y.
- Opell, Alfred Nathaniel  
750 Howard Avenue, Brooklyn, N. Y.
- Orkand, Sidney  
2164 Prospect Avenue, c/o Orkin, New York, N. Y.
- Palen, Robert O'Neill  
Monroe, N. Y.
- Palen, Jacob  
102-44 Jamaica Avenue, Richmond Hill, N. Y.
- Papalinsky, Morris  
1001 Lincoln Place, Brooklyn, N. Y.
- Parker, Sidney Elbert  
179 Wilkins Street, Rochester, N. Y.
- Pavony, Nathan  
693 Saratoga Avenue, Brooklyn, N. Y.
- Pekarsky, Morris  
219 East 10th Street, New York, N. Y.
- Peterson, Leon Adam  
51 West 111th Street, New York, N. Y.
- Pinck, Nathan  
84 Henry Street, Passaic, N. J.
- Platt, Max  
953 East 174th Street, New York, N. Y.
- Posner, Albert H.  
923 Fox Street, New York, N. Y.
- Pospasil, Rudolph Joseph  
30-70 32nd Street, Astoria, L. I.
- Rabinowitz, Kalman  
63 Jefferson Street, New York, N. Y.
- Ramo, Louis  
34 St. Marks Avenue, Rockville Centre, N. Y.
- Reich, Bernard  
163 Smith Street, Brooklyn, N. Y.
- Reife, William  
1023 Hopkinson Avenue, Brooklyn, N. Y.
- Reisch, George Frederick  
60 East Palisade Boulevard, Palisade Park, N. J.
- Rende, Alfonso Louis  
723 East 229th Street, New York, N. Y.
- Robas, Mildred Marie  
90-54 178th Street, Jamaica, N. Y.
- Robey, Esther  
1002 East 167th Street, New York, N. Y.
- Ronick, Charles  
1244 Wheeler Avenue, New York, N. Y.
- Ronsheim, Julian  
808 West End Avenue, New York, N. Y.
- Rosenberg, David  
62 Columbia Street, New York, N. Y.
- Rosenberg, Hyman  
387 Williams Avenue, Brooklyn, N. Y.
- Rosenberg, Irving  
87 Siegel Street, Brooklyn, N. Y.
- Rosenberg, Isaac  
826 East 167th Street, New York, N. Y.
- Rosenberg, Samuel  
1175 East 9th Street, Brooklyn, N. Y.
- Rosenman, Chaim  
1279 Sheridan Avenue, Apt. 4-B, New York, N. Y.
- Rosenthal, William  
120 West 112th Street, New York, N. Y.
- Rosmosky, Abe  
27 East 110th Street, New York, N. Y.
- Rothbaum, Milton  
1424 Bryant Avenue, New York, N. Y.
- Rothberg, Philip  
1566 St. Marks Avenue, Brooklyn, N. Y.
- Rothman, Abraham  
1420 Stebbins Avenue, New York, N. Y.
- Rovner, Louis  
310 So. Third Street, Brooklyn, N. Y.
- Rubenstein, Arthur  
505 Essex Street, Brooklyn, N. Y.
- Rubin, Benjamin  
493 Second Avenue, New York, N. Y.
- Rubin, Harold  
870 Riverside Drive, New York, N. Y.
- Saperstein, Milton  
1519 Plimpton Avenue, New York, N. Y.
- Sarkisian, Yeran Sarounie  
5 West 125th Street, New York, N. Y.
- Schechter, Hyman  
418 East 5th Street, New York, N. Y.
- Schechter, Morris  
348 East 9th Street, New York, N. Y.
- Scheer, John Jonas  
132 East 119th Street, New York, N. Y.
- Scher, Wilfred  
1157 Manor Avenue, New York, N. Y.
- Scherer, Paul  
126 East Second Street, New York, N. Y.
- Schmukler, Michael  
4 Blake Avenue, Brooklyn, N. Y.
- Schneck, Max Raymond  
665 Allerton Avenue, New York, N. Y.
- Scholefield, Charles Wesley  
23 Ralph Street, Beacon, N. Y.
- Schulman, Solomon  
823 Trinity Avenue, New York, N. Y.
- Schur, Sidney  
2012 East 13th Street, Brooklyn, N. Y.
- Schwartz, Hyman  
819 East 168th Street, New York, N. Y.
- Schwartz, Jacob  
1567 First Avenue, New York, N. Y.
- Schwartz, Joseph George  
250 East 30th Street, New York, N. Y.
- Scouras, Constantine  
29 West 65th Street, New York, N. Y.

- Senft, Hyman  
108 Grafton Street, Brooklyn, N. Y.
- Seppi, Dominic  
319 Third Street, Cliffside Park, N. J.
- Sherman, Harold  
1448 Fifth Avenue, New York, N. Y.
- Shub, Abraham  
575 Riverdale Avenue, Brooklyn, N. Y.
- Shucard, Jack  
922 Stone Avenue, Brooklyn, N. Y.
- Siderman, Morris  
2784 East 7th Street, Brooklyn, N. Y.
- Siegel, Joseph  
Ferndale, N. Y.
- Siegel, Solomon  
1524 Charlotte Street, c/o Sheiner, New York, N. Y.
- Silverman, Max  
531 Bradford Street, Brooklyn, N. Y.
- Silverstein, George Jeremiah  
12 Pinehurst Avenue, New York, N. Y.
- Singer, Max  
296 Delancey Street, New York, N. Y.
- Slobin, Jacob  
807 28th Street, Union City, N. J.
- Slutzkin, Frederick Israel  
842 Hewitt Place, New York, N. Y.
- Smith, Van Roy  
101 West 130th Street, New York, N. Y.
- Spanier, Irving  
117 Clymer Street, Brooklyn, N. Y.
- Spetalnick, Max  
1245 Ward Avenue, New York, N. Y.
- Spirko, Stephen Michael  
107 Erie Street, Jessup, Pa.
- Steinberg, Isidore  
4702-12th Avenue, Brooklyn, N. Y.
- Steiner, Elias  
218 East 7th Street, New York, N. Y.
- Steir, Moe  
60 Sheriff Street, New York, N. Y.
- Stitzel, Louis  
308 East 6th Street, New York, N. Y.
- Stolper, Morris  
19 East 108th Street, New York, N. Y.
- Strauss, Morris  
318 East 5th Street, New York, N. Y.
- Thompson, Joseph Henry  
100 Hester Street, New York, N. Y.
- Timen, Clare F.  
347 Hillside Avenue, Jamaica, N. Y.
- Tishler, George  
308 East 8th Street, New York, N. Y.
- Tobias, Meyer  
104 Grand Street, Hoboken, N. J.
- Trop, Rachel  
892½ Forest Avenue, New York, N. Y.
- Troub, Louis  
1728 Sterling Place, Brooklyn, N. Y.
- Tunis, Philip  
138 Norfolk Street, New York, N. Y.
- Twersky, Mary  
323 South Main Street, Torrington, Conn.
- Valerio, Leo Joseph  
345 West 21st Street, New York, N. Y.
- Vasiliades, Angelo  
257 Second Street, Lakewood, N. J.
- Wassing, David Leon  
276 Washington Street, Hartford, Conn.
- Webman, Larry  
402 South Second Street, Brooklyn, N. Y.
- Weidenbaum, Ralph  
248 East Houston Street, New York, N. Y.
- Weinberg, Victor  
219 Henry Street, New York, N. Y.
- Weinstein, Louis  
1808 75th Street, Brooklyn, N. Y.
- Weintraub, Hyman  
57 Suffolk Street, New York, N. Y.
- Weiss, Louis  
93 Nightingale Street, Dorchester, Mass.
- Wexlin, Hyman  
1219 Rosedale Avenue, New York, N. Y.
- Williams, Clifford Albert  
26 West 136th Street, New York, N. Y.
- Winokur, Aaron  
2223 Surf Avenue, Coney Island, Brooklyn, N. Y.
- Wisztreich, Edward Odon  
315 East 79th Street, New York, N. Y.
- Wollenberg, Hamilton  
136 East 96th Street, New York, N. Y.
- Youran, Morris  
51 West 111th Street, New York, N. Y.
- Zanca, Anthony  
1320 Brook Avenue, New York, N. Y.
- Zeichner, Lewis Abraham  
278 East 7th Street, New York, N. Y.
- Zeit, Samuel  
662 Linden Boulevard, Brooklyn, N. Y.
- Zincover, Julius  
1056-50th Street, Brooklyn, N. Y.
- Zunin, Louis  
980 Satter Avenue, Brooklyn, N. Y.
- Zweifach, Jacob  
162 Lee Avenue, Brooklyn, N. Y.

## SCHEME OF ATTENDANCE

## COLLEGE CLASS FIRST YEAR

*Tuesday*

	Section 1	Section 2	Section 3	Section 4	Section 5	Section 6
9-10	Botany Lect.	Botany Lect.	Botany Lect.	Botany Lect.	Botany Lect.	Botany Lect.
10-11	Histology Lect.	Histology Lect.	Histology Lect.	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.
11-12	Botany Lab.	Botany Lab.	Botany Lab.	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.
12-1	Botany Lab.	Botany Lab.	Botany Lab.	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.
2-3	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.
3-4	Posology	Posology	Posology	Botany Recit.	Pharmacy Recit.	Pharmacy Recit.
4-5	Botany Lab.	Botany Lab.	Botany Lab.	Physics Recit.	Chemistry Recit.	Physics Recit.
5-6	Botany Lab.	Botany Lab.	Botany Lab.	Pharmacy Recit.	Physics Recit.	Chemistry Recit.

*Thursday*

9-10	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.
10-11	Chemical Lab.	Chemical Lab.	Chemical Lab.	Histology Lect.	Histology Lect.	Histology Lect.
11-12	Chemical Lab.	Chemical Lab.	Chemical Lab.	Botany Lab.	Botany Lab.	Botany Lab.
12-1	Chemical Lab.	Chemical Lab.	Chemical Lab.	Botany Lab.	Botany Lab.	Botany Lab.
2-3	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.
3-4	Botany Recit.	Botany Recit.	Pharmacy Recit.	Posology	Posology	Posology
4-5	Pharmacy Recit.*	Pharmacy Recit.	Pharmacy Recit.	Botany Lab.	Botany Lab.	Botany Lab.
5-6	Pharmacy Recit.†	Physics Recit.	Physics Recit.	Botany Lab.	Botany Lab.	Botany Lab.

*Saturday*

9-10	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.
10-11	Pharmacy Lab.*	Pharmacy Lab.	Pharmacy Lab.	Chemical Lab.	Chemical Lab.	Chemical Lab.
11-12	Pharmacy Lab.*	Pharmacy Lab.	Pharmacy Lab.	Chemical Lab.	Chemical Lab.	Chemical Lab.
12-1	Pharmacy Lab.*	Pharmacy Lab.	Pharmacy Lab.	Chemical Lab.	Chemical Lab.	Chemical Lab.
2-3	Physics Lect.	Physics Lect.	Physics Lect.	Physics Lect.	Physics Lect.	Physics Lect.
3-4	Physics Recit.	Chemistry Recit.	Chemistry Recit.	Pharmacy Recit.	Botany Recit.	Botany Recit.
4-5	Anal. Chem. Recit.	Anal. Chem. Recit.	Anal. Chem. Recit.	Anal. Chem. Recit.	Anal. Chem. Recit.	Anal. Chem. Recit.
5-6	Chemistry Recit.	Pharmacy Recit.	Pharmacy Recit.	Chemistry Recit.	Pharmacy Recit.	Pharmacy Recit.

## COLLEGE CLASS SECOND YEAR

*Monday*

	Section 1	Section 2	Section 3	Section 4	Section 5	Section 6
9-10	Physiology Lect.	Physiology Lect.	Physiology Lect.	Physiology Lect.	Physiology Lect.	Physiology Lect.
10-11	Chemistry Lab.	Chemistry Lab.	Chemistry Lab.	Phar'cog. Lab.	Phar'cog. Lab.	Phar'cog. Lab.
11-12	Chemistry Lab.	Chemistry Lab.	Chemistry Lab.	Phar'cog. Lab.	Phar'cog. Lab.	Phar'cog. Lab.
12-1	Chemistry Lab.	Chemistry Lab.	Chemistry Lab.	Phar'cog. Lab.	Phar'cog. Lab.	Phar'cog. Lab.
2-3	Physiology Recit.	Physiology Recit.	Pharmacy Recit.	Pharmacy Recit.	Chemistry Recit.	Pharmacy Recit.
3-4	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.
4-5	Chemistry Recit.	Pharmacy Recit.	Coml. Pharmacy	Coml. Pharmacy	Bacteriology <del>Lect</del>	Bacteriology <del>Lect</del>
5-6	Pharmacy Recit.	Chemistry Recit.	Coml. Pharmacy	Coml. Pharmacy	Bacteriology <del>Lect</del>	Bacteriology <del>Lect</del>

*Wednesday*

9-10	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.	Pharmacy Lect.
10-11	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.	Chemistry Lab.	Chemistry Lab.	Chemistry Lab.
11-12	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.	Chemistry Lab.	Chemistry Lab.	Chemistry Lab.
12-1	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.	Chemistry Lab.	Chemistry Lab.	Chemistry Lab.
2-3	Physics Lect.	Physics Lect.	Physics Lect.	Physics Lect.	Physics Lect.	Physics Lect.
3-4	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.
4-5	Coml. Pharmacy	Coml. Pharmacy	Bacteriology <del>Lect</del>	Bacteriology <del>Lect</del>	Pharmacy Recit.	Pharmacy Recit.
5-6	Coml. Pharmacy	Coml. Pharmacy	Bacteriology <del>Lect</del>	Bacteriology <del>Lect</del>	Physiology Recit.	Chemistry Recit.

*Friday*

9-10	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.	Chemistry Lect.
10-11	Phar'cog. Lab.	Phar'cog. Lab.	Phar'cog. Lab.	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.
11-12	Phar'cog. Lab.	Phar'cog. Lab.	Phar'cog. Lab.	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.
12-1	Phar'cog. Lab.	Phar'cog. Lab.	Phar'cog. Lab.	Pharmacy Lab.	Pharmacy Lab.	Pharmacy Lab.
2-3	Pharmacy Recit.	Pharmacy Recit.	Chemistry Recit.	Chemistry Recit.	Pharmacy Recit.	Physiology Recit.
3-4	Coml. Phar. Lect.	Coml. Phar. Lect.	Coml. Phar. Lect.	Coml. Phar. Lect.	Coml. Phar. Lect.	Coml. Phar. Lect.
4-5	Bacteriology <del>Lect</del>	Bacteriology <del>Lect</del>	Physiology Recit.	Pharmacy Recit.	Coml. Pharmacy	Coml. Pharmacy
5-6	Bacteriology <del>Lect</del>	Bacteriology <del>Lect</del>	Pharmacy Recit.	Physiology Recit.	Coml. Pharmacy	Coml. Pharmacy

UNIVERSITY CLASS FRESHMAN YEAR

	<i>Tuesday</i>			
9-10	Botany Lect.	2-3	Chemistry Lect.	
10-11	Chemical Lab.	3-4	Pharmacy Lab. } *	
11-12	Chemical Lab.	4-5	Pharmacy Lab. }	
12-1	Chemical Lab.			<i>Friday</i>
		9-10	Botany Recit.	
2-3	Pharmacy Lect.	10-11	Physics Recit.	
3-4		11-12	Anal. Chem. Recit.	
4-5		12-1	Phar. Recit.	
	<i>Wednesday</i>			
9-10	English	2-3	American Government	
10-11	American Government	3-4	English	
11-12	Chemistry Recit.	4-5		
12-1	Pharmacy Recit.			<i>Saturday</i>
		9-10	Chemistry Lect.	
2-3	Botany Lect.	10-11	Botany Lab. M M 9-10	
3-4	Botany Lab. M M 9-10	11-12	Botany Lab. (U)	
4-5	Botany Lab.—Posology* (U)	12-1	Botany Lab. (U)	
	<i>Thursday</i>			
9-10	Pharmacy Lect.	2-3	Physics Lect.	
10-11	Pharmacy Lab. } *	3-4	American Government	
11-12	Pharmacy Lab. }	4-5	English	
12-1	Pharmacy Lab. }			*Botany Laboratory and Posology are given on alternate weeks.

UNIVERSITY CLASS SOPHOMORE YEAR

	<i>Monday</i>			
9-10	Physiology Lect.	12-1	Phar'cog. Lab.	
10-11	Pharmacy Lab. } *	2-3	Physics Lect.	
11-12	Pharmacy Lab. }	3-4	Chemistry Lect.	
12-1	Pharmacy Lab. }			<i>Thursday</i>
2-3	German	9-10	German	
3-4	Pharmacy Lect.	10-11	Chemistry Lab.	
		11-12	Chemistry Lab.	
	<i>Tuesday</i>	12-1	Chemistry Lab.	
9-1	<sup>1</sup> Pharmacy Lab. or	2-3	Bacteriology Lab. Let	
	<sup>2</sup> Physics Lab.	3-4	Bacteriology Lab.	
2-3	German	4-5	Bacteriology Lab.	
3-4	Coml. Pharmacy			<i>Friday</i>
4-5	Coml. Pharmacy	9-10	Chemistry Lect.	
	<sup>1</sup> First half of term.	10-11	Physiology Recit.	
	<sup>2</sup> Second half of term.	11-12	Chemistry Recit.	
	<i>Wednesday</i>	12-1	Pharmacy Recit.	
9-10	Pharmacy Lect.	2-3	German	
10-11	German	3-4	Coml. Pharmacy Lect.	
11-12	Phar'cog. Lab.	4-5	Pharmacy Recit.	

\* Phar during first half of year; Dispensing in 2nd half

## UNIVERSITY CLASS JUNIOR YEAR

Lecture and recitation courses extending throughout the year.

## Section A

## Section B

*Monday*

32-	Theories of Chem. Lect.	Theories of Chem. Lect.
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*Tuesday*

9-10	Pharmacy Recit.	Chemistry Recit.
10-11	Pharmacy Lect.	Pharmacy Lect.
11-12	Chemistry Recit.	Pharmacy Recit.
12-1	Chemistry Lect.	Chemistry Lect.

*Wednesday*

12-1	Chemistry Lect.	Chemistry Lect.
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*Laboratory Courses*

All hours on Monday, Tuesday, Wednesday and Friday from 9-1 and 2-5, excepting those stated for lectures and recitations will be devoted to laboratory work.

Dept. Chemistry (Sept. 24-Jan. 11) <i>14 weeks</i>	Dept. Pharmacy (Sept. 24-Nov. 30)
Dept. Pharmacy (Jan. 14-Mar. 22) <i>10 weeks</i>	Dept. Materia Medica (Dec. 3-Feb. 8)
Dept. Materia Medica (Mar. 25-May 17) <i>8 weeks</i>	Dept. Chemistry (Feb. 11-May 17)

## UNIVERSITY CLASS SENIOR YEAR

Lecture and recitation courses extending throughout the year.

*Tuesday*

9-10	Quantitative Anal. Lect.
10-11	Food Analysis Lect.
11-12	Bibliography
12-1	Pharmacy Lect.

*Wednesday*

2-3	Biological Chemistry Lect.
3-4	Physiology Lect.

*Laboratory Courses*

All hours on Monday, Tuesday, Wednesday, Thursday and Friday from 9-1 and 2-5, excepting those stated for lectures will be devoted to laboratory work.

Analytical Chemistry, Sept. 24-Nov. 16	}	<i>8 weeks each</i>
Food Analysis and Toxicology, Nov. 19-Jan. 25		
Pharmacognosy and Taxonomy, Jan. 28-Mar. 22		
Pharmacy, Mar. 25-May 17		



## ACADEMIC CALENDAR

1928

- June 11-Aug. 20. Summer Laboratory Courses.  
Aug. 20-Sept. 8. Summer Quiz Courses.  
Sept. 4-6. Registration for first year candidates.  
11-13. Supplementary Examinations.  
18-19. Registration for second, third and fourth year candidates.  
24. Monday, Ninety-ninth Session begins. Second, Third and Fourth Year Classes assemble 9 a. m.  
25. Tuesday, First Year Classes assemble 9 a. m.  
Oct. 1. Monday, Evening Special Course Classes assemble 7:00 p. m.  
Nov. 6. Tuesday, Election Day, Holiday.  
22. Thursday, to November 24, Saturday, inclusive. Thanksgiving Holidays.  
Dec. 20. Thursday, to

1929

- Jan. 2. Wednesday, inclusive, Christmas Holidays.  
3. Thursday, Sessions resumed.  
21-26. Mid-Year Examinations.  
Feb. 12. Tuesday, Lincoln's Birthday, Holiday.  
22. Friday, Washington's Birthday, Holiday.  
Mar. 29-30. Spring Holiday.  
Apr. 8. Monday, All classes. Last Day for applying for final examinations with payment of fee.  
May 3. Friday, Evening Courses close.  
13-17. Final College Course Examinations.  
13-22. Final University Course Examinations.  
May 27-30. Centennial Celebration.  
29. Wednesday, First and Second Year Exercises (Alumni Day).  
June 4. Tuesday, University Commencement.

## SCHEDULE OF EXAMINATIONS

### *Supplementary Examinations*

#### FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

1928

- Sept. 11. Tuesday, 9-12 a. m., Pharmacy.  
Tuesday, 2-5 p. m., Physics.  
12. Wednesday, 9-12 a. m., Botany, Posology.  
Wednesday, 2-5 p. m., Chemistry.

#### SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- Sept. 11. Tuesday, 9-12 a. m., Pharmacy.  
Tuesday, 2-5 p. m., Jurisprudence and Accounting.

12. Wednesday, 9-12 a. m., Materia Medica and Toxicology.  
Wednesday, 2-5 p. m., Pharmaceutical Chemistry, Inorganic Chemistry (Univ.).
13. Thursday, 9-12 a. m., Physics (Univ.).  
Thursday, 2-5 p. m., Organic Chemistry.

## THIRD YEAR UNIVERSITY CLASS

- Sept. 11. Tuesday, 9-12, Pharmacy.  
Tuesday, 2-5, Dispensing Pharmacy.
12. Wednesday, 9-12, Theories of Chemistry.
13. Thursday, 2-5, Organic Chemistry.

*Mid-Year Examinations*

*Note.* During this week regularly scheduled classes will be held during morning sessions, excepting the 9-10 a. m. lectures.

## FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

1929

- Jan. 22. Tuesday, 2-5, Botany, Posology.
23. Wednesday, 2-5, English, American Government.
24. Thursday, 2-5, Pharmacy.
26. Saturday, 2-5, Physics, Chemistry.

## SECOND YEAR COLLEGE AND UNIVERSITY CLASS

- Jan. 21. Monday, 2-5, Physiology.
22. Tuesday, 2-5, German.
23. Wednesday, 2-5, Chemistry, Physics.
25. Friday, 2-5:30, Pharmacy, Commercial Pharmacy.

*Final Examinations*

## FIRST YEAR COLLEGE AND UNIVERSITY CLASS

1929

- May 14. Tuesday, 9-12, Botany, Posology.  
Tuesday, 2-5, Chemistry.
16. Thursday, 9-12, Physics.  
Thursday, 2-5, Pharmacy.
18. Saturday, 9-12, English, American Government.

## SECOND YEAR COLLEGE AND UNIVERSITY CLASS

- May 13. Monday, 9-12, Chemistry.  
Monday, 2-5, Commercial Pharmacy, Jurisprudence.
15. Wednesday, 9-12, Pharmacy.  
Wednesday, 2-5, Physiology.
17. Friday, 9-12, Physics.  
Friday, 2-5, German.

## THIRD AND FOURTH YEAR UNIVERSITY CLASSES

- May 20. Monday, 9-12, Junior and Senior Pharmacy.  
Monday, 1-4, Junior, Theories of Chemistry.  
Monday, 1-4, Senior, Inorganic Quantitative Analysis.
21. Tuesday, 9-12, Junior, Organic Chemistry.  
Tuesday, 9-12, Senior, Food Analysis and Toxicology.
22. Wednesday, 9-5, Senior Biological Chemistry.  
Wednesday, 9-5 Senior Physiology.

## SYNOPSIS OF STUDIES SUBSEQUENT TO THE SESSION OF 1928-1929

## COLLEGE CLASS

*First and Second Years* (The same as for 1928-1929)*Third Year*

(Beginning with the Session of 1929-1930.)

		Class Hours	Laboratory Hours	Points
MM 101-102	Materia Medica	3	0	6
MM 103-104	Toxicology	1	0	2
MM 109-110	Pharmaceutical Sundries	1	0	2
Chm. 103-104	Organic Chemistry	3	0	6
Chm. 107-108	New Remedies	2	0	4
Phr. 101-102	Theoretical Pharmacy	3	0	6
Phr. 103-104	Theoretical Dispensing Pharmacy	3	0	6
Phr. 105-106	Manufacturing Pharmacy	0	3	3
Phr. 107-108	Dispensing Pharmacy	0	4	4
Phr. 115-116	Business Pharmacy	0	4	4

## UNIVERSITY CLASS

*First and Second Years* (The same as for 1928-1929)*Third Year*

(Beginning with the Session of 1929-1930.)

		Class Hours	Laboratory Hours	Points
MM 101-102	Materia Medica	3	0	6
MM 103-104	Toxicology	1	0	2
MM 111-112	Microscopic Pharmacognosy	½	1½	2½
Chm. 101-102	Theories of Chemistry	1	0	2
Chm. 103-104	Organic Chemistry	3	0	6
Chm. 105-106	Analytical Chemistry and Urine Analysis	0	10	10
Phr. 109-110	Theoretical Pharmacy	2	0	4
Phr. 111-112	Practical Pharmacy	0	5	5
Phr. 113-114	Practical Dispensing Pharmacy	0	2	2

*Fourth Year*

(Beginning with the Session of 1930-1931.)

MM 151-152	Applied Pharmacognosy	¾	5	6½
MM 153-154	Botanical Taxonomy	0	1½	1½
MM 155-156	Human Physiology	1	0	2
Chm. 151-152	Inorganic Quantitative Analysis	1	8	10
Chm. 153-154	Food Analysis and Toxicology	1	8	10
Chm. 155-156	Biological Chemistry	1	0	2
Chm. 157-158	Chemical Bibliography	1	0	2
Phr. 151-152	Advanced Pharmacy	1½	0	3
Phr. 153-154	Advanced Pharmaceutical Assaying	0	7	7

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# Columbia University

## BULLETIN OF INFORMATION

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Twenty-ninth Series, No. 52

September 28, 1929

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### COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

1929-1930



113-119 WEST 68TH STREET  
NEW YORK

# Columbia University Bulletin of Information

Twenty-ninth Series, No. 52

September 28, 1929

Issued weekly at Columbia University, Morningside Heights, New York, N. Y. Entered as second-class matter August 10, 1918, at the Post Office at New York, N. Y., under the Act of August 24, 1912. Acceptance for mailing at a special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized. These include:

1. Reports of the President and Treasurer to the Trustees.
2. The Catalogue Number, the Directory Number and the Announcements of the several Colleges and Schools, and of certain Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.

C. U. P. 21,500-1929

For special or more detailed information than is given in this announcement, applicants are requested to address the Registrar of the College, 115 West Sixty-eighth Street. His office hours are as follows: From September 1, 1929 to May 1, 1930, daily except Saturdays, 9 a. m. to 5 p. m.; Saturdays, 9 a. m. to 12 m. Other portions of the year, daily (except Saturdays), 9:30 a. m. to 4 p. m.; Saturdays, 9:30 a. m. to 12 m.





COLLEGE OF PHARMACY OF THE CITY OF NEW YORK  
113-119 WEST SIXTY-EIGHTH STREET



Columbia University  
in the City of New York

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COLLEGE OF PHARMACY  
OF THE CITY OF  
NEW YORK

1929-1930



113-119 WEST 68TH STREET  
NEW YORK

This College reserves the right to make such changes in the curriculum, schedule, calendar and regulations appearing in this announcement, as circumstances may require.

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## COLUMBIA UNIVERSITY

Columbia University was founded in 1754 as Kings College by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws and Doctor of Law (Doctor Juris); the School of Medicine with courses leading to the degree of Doctor of Medicine; the School of Engineering, with courses leading to the Bachelor of Science degree, the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degree of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degrees of Bachelor of Literature and Master of Science; the School of Business, with courses leading to the degrees of Bachelor and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degrees of Bachelor of Science and Doctor of Dental Surgery; the School of Library Service, with courses leading to the degrees of Bachelor of Science and Master of Science; Seth Low Junior College offering two years of collegiate work in preparation for admission to professional schools or to more advanced work in Liberal Arts and Sciences in Columbia University; the non-professional graduate Faculties of Political Science, Philosophy and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy.

In addition to these schools and faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; the College of Pharmacy of the City of New York, with courses leading to the degrees of Pharmaceutical Chemist, Bachelor of Science and Doctor of Pharmacy; St. Stephen's College, Annandale, New York, an undergraduate college for men with courses leading to the degree of Bachelor of Arts; and the Union Theological Seminary, whose faculty conducts certain University work leading to the degree of Master of Arts.

The University maintains three sessions during the year: The Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education and to take courses toward a diploma or an academic degree; Home Study courses are also offered to persons who are unable to take work in residence.

## ADMISSION

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma, is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standard of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the *Announcement* of each School will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

## WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar. Applications for the return of fees must be made in writing at the time of withdrawal.

The Dean or Director of the school or faculty concerned may, for reasons of weight, grant a leave of absence to a student in good standing.

## ANNOUNCEMENTS

The *Announcements* of each College or School, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

The *Announcement* of each School contains a schedule of fees and expenses for the courses in that School.

## LIBRARY

The libraries of the University contain about 1,132,236 volumes, exclusive of unbound pamphlets. The various departments of instruction have also special libraries in connection with their lecture rooms and laboratories. The Avery

Architectural Library, the Law Library, the Ella Weed Library of Barnard College, Teachers College Library, and the libraries of the College of Physicians and Surgeons, the School of Dental and Oral Surgery, and the College of Pharmacy, are all available to students of the University.

#### RESIDENCE HALLS

There are four residence halls for men on South Field: Furnald with 282 rooms, Hartley with 300, John Jay with 476 and restaurants adequate for all men students, and Livingston with 300 rooms. Johnson Hall, on East Field, with accommodations of room and board for 360 students in the graduate and professional schools is a residence hall for women.

All the University residence halls, for both men and women, are under the supervision of advisory committees appointed by the President, consisting of University officers and assisted by committees made up of residents in the halls.

Copies of Residence Halls Announcements giving floor plans and dormitory regulations together with application blanks will be furnished on request by the Secretary of the University, 213 Library.

Detailed information and advice concerning desirable rooms and boarding places in the vicinity of the campus for both men and women may be obtained by writing to the Residence Bureau, Room M, Earl Hall.

In addition to the dining-halls in John Jay and Johnson the University maintains the following cafeteria restaurants (service *à la carte*) which furnish wholesome food at moderate rates: The Commons (men and women) University; Barnard Hall Lunch Room (women) Barnard Hall; Teachers College Cafeteria (men and women) Grace Dodge Hall, 121 St. The Columbia University Press Bookstore, located in the basement of Journalism, conducts a soda fountain where light luncheons are served.

#### GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the Medical Director. On the basis of this examination, advice is given as to the kind and amount of exercise best adapted to his needs. Barnard Hall, of Barnard College, and Thompson Hall, of Teachers College, are thoroughly equipped with physical training facilities for women students.

#### EARL HALL

Earl Hall was given to Columbia University by the late William Earl Dodge for the religious and social activities of the students. On the main floor, reached by the campus entrance, are the Appointments Office, Residence Bureau, Men's Residence Halls Office (where may also be found the Director of Earl Hall who is in charge of social affairs on the campus), the Trophy Room and Lobby, containing team pictures and trophies. On the upper floor are located offices for the Chaplain of the University and the Director of Religious Activities; an audi-

itorium seating 400 people is available for student receptions and dances. The first floor (entrance from Broadway) is occupied by the offices of the University Medical Officer.

#### MEDICAL SERVICE

The University Medical Officer has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. The University Medical Officer, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists and nursing care, will receive such information upon applying at the office of the University Medical Officer.

# THE COLLEGE OF PHARMACY

## IMPORTANT ANNOUNCEMENTS

### *Graduate Course*

Beginning with the session of 1928-1929, a graduate course of two years was inaugurated. This course, leading to the degree of Doctor of Pharmacy, is open to graduates with the Baccalaureate Degree, conferred by this College or by other schools of pharmacy maintaining equivalent courses of study. The course consists of two full years of study in residence. Thirty hours weekly are occupied in research work in the department representing the major subjects, and three hours weekly in each of the other two departments. For this session, not more than two students will be matriculated in each of the three departments.

### *Fourth Year, University Course*

Due to lack of accommodations it will be possible for the year 1929-1930 to accept but a limited number in this class.

## GENERAL STATEMENT

The one-hundredth annual session of the College of Pharmacy, open to both men and women, will begin on Monday, September 23, 1929.

In May, 1930, our first graduates of the reorganized and extended three-year College Course will receive their diplomas. Up to the present time, our two-year College Course, while giving thorough instruction in pharmacy, has not been considered as of sufficient scope to be entitled to University standing, and its diplomas have been issued by the College, independently. With the extension of the work to three years, based on entrance qualifications equivalent to those for admission to Columbia College, this deficiency is eliminated, and the diplomas of this course will hereafter bear the University name, this change being inaugurated with the graduating class of 1930.

## THE COLLEGE BUILDING

The location of the College is at one of the most readily accessible points in the city. Within two blocks are stations of the elevated and underground railroads, and the Broadway, Columbus and Amsterdam Avenue lines connect with nearly all surface lines in the city. The central buildings of the University are reached within fifteen minutes from the door of the College.

The College building was erected in 1894, after a study of the principal buildings of the kind in this country and abroad. So great has been the increase in the applications for admission that it was found necessary in 1923 to provide greater accommodations in the form of an additional connecting building.

In its planning, two principal objects were kept in view: first, provision for a large increase in the membership of the first and second-year classes; second, greatly increased and improved facilities for the work of the higher classes.

In connection with the latter, extensive provision has been made for research work, by both faculty and special students. Our library has also been greatly improved, the entire lower floor of the new building having been reserved for its accommodation.

#### THE LIBRARY

The library is in charge, during College hours, of a trained librarian, who is ready to offer any assistance desired by readers. It contains the important works of reference required in the different departments of instruction, and for the various branches of science taught in the College of Pharmacy. It covers, indeed, a very broad field in all departments of chemistry, botany, and pharmacy.

Should the resources of the College be insufficient for some special purpose, the student has recourse to such great library storehouses as the General Library of Columbia University, on Morningside Heights, the Library of the College of Physicians and Surgeons, School of Dental and Oral Surgery, the New York Academy of Medicine, the New York Botanical Garden, and others, and he will also be able, by special arrangement, to borrow from the great library of the Surgeon-General's office at Washington.

The library contains an extensive series of periodicals on chemistry, pharmacy, and botany, with their allied branches. All important journals relating to the work of the College are regularly received.

During regular College hours the library is accessible not only to officers and students of the College, but also to the pharmacists of the city. Under certain regulations, books may be borrowed for outside use, but for obvious reasons important works of reference and unbound periodicals are not loaned. Library copies of the textbooks in use by the College may not be removed from the library.

#### INFORMATION BUREAU

The Information Bureau conducted by the library staff is designed to furnish pharmacists with data required in emergencies and not available in the library of the average drug store. During the past years of operation the Bureau has met with gratifying success, and it is steadily growing in popularity.

The following paragraphs explain the methods employed in conducting the service.

1. Telephone inquiries will be answered without charge. Residents of Greater New York or vicinity wishing to inquire about some pharmaceutical problem will call up the Information Bureau, Trafalgar 1733, and will receive information immediately if it is accessible.
2. Non-residents will have their problems answered by mail if they enclose a self-addressed stamped envelope.
3. Problems requiring extended research will be handled for a fee as moderate as consistent with high-grade service.
4. Translations of articles from foreign languages, either in full or in abstract, as well as transcripts of papers appearing in English or American pharmaceutical, chemical or botanical periodicals will be prepared for those desiring to pay for such service.
5. As in the past, all visitors to the library, desiring to do their own research work, will be given courteous attention.

## EMPLOYMENT FOR STUDENTS

The Registrar, so far as possible, assists students to secure such positions, in and about the city, as will not prevent them from regularly attending the College exercises.

The general plan adopted may be briefly stated as follows: Each pharmacist engages both a first- and second-year student, who shall work alternately three days during the week and half a day on Sunday. This allows the students half their time for College work and necessary rest. The College Course lectures are arranged so as to harmonize with this plan.

Any student wishing to secure employment should upon entering College communicate with the Registrar.

Within easy reach of the College are some three thousand pharmacies, where students who have had some experience in pharmacy may obtain employment with salary sufficient to pay the whole or a large part of their expenses while attending College.

## APPLICATION FOR ADMISSION

Every candidate for admission to the College of Pharmacy is required to file with the Registrar of the College a personal application and a transcript of his high-school record, blank forms for which can be had upon application. He is also required to file an approval of his application for a pharmacy student qualifying certificate *before he can be accepted*, and he must secure the apprentice license before his matriculation can be considered complete.

## NEW YORK STATE QUALIFYING CERTIFICATE

To be entitled to a pharmacy student qualifying certificate, the applicant must be at least seventeen years of age, and must have been graduated from an accredited four-year high-school course, or have covered courses acceptable to the Department of Education as a full equivalent thereof. A high-school or other secondary school course of study will not be considered acceptable unless the applicant has received the school diploma, and unless his or her record includes

English, four years

Science, two years.

Mathematics, two years.

Foreign language, two years.

History, one year.

Physiology, one-half year (unless the two years of science include biology or general science).

Civics, one-half year.

Sufficient electives to make up a full four-year course aggregating 15 units.

The fulfillment of these requirements must be officially guaranteed by a qualifying certificate issued by the New York State Department of Education. If the applicant is entitled to receive the certificate, he will be so notified by letter; which letter should be presented to the Registrar of the College of Pharmacy. Blank forms for making application for the certificate may be secured either from the Registrar's office or from the Department of Education at Albany.

## APPRENTICE LICENSE

The apprentice license should be applied for when the candidate commences his experience in a pharmacy or drug store. Those who have had no experience before entering the pharmacy school, or whose experience has been in a drug store or pharmacy outside of New York State, will make application for their licenses through the school during the first week of the course, the Registrar acting as "preceptor." Blank forms for making application for the apprentice license may be secured either from the Registrar's office or from the Board of Pharmacy at Albany, N. Y.

## HEALTH CERTIFICATE

All applicants for admission to any of the courses given must present an acceptable certificate of health from the candidate's family physician or from the University Medical Officer. In case of doubt an examination by the University Medical Officer will be required. Appropriate blanks are furnished by the Registrar of the College.

## COURSES OFFERED

Two regular courses of study are offered, known respectively as the College Course and the University Course, and three evening courses in the Departments of Materia Medica, Pharmacy and Chemistry.

## THE COLLEGE COURSE

This course now comprises three full years of professional work, and is designed to fit the graduate for meeting the educational requirements of the Boards of Pharmacy of most of the states. The fundamental idea of this increase in time is generally accepted as being that of improving the quality of the work done, rather than of providing a large amount of additional work, this improvement applying particularly to the practical features of the course. The precise object of a course leading to the degree of Graduate in Pharmacy being to prepare such graduates for meeting the conditions of service in a retail pharmacy; the greater portion of the increased time has been assigned to the department of pharmacy, and to those features of the work of the other departments which are directly contributory thereto. After a careful study of the requirements, we have concluded that the time officially assigned for this course is insufficient, and we have added 128 hours for laboratory work in commercial and dispensing pharmacy.

The accomplishment of the better training that is sought necessarily calls for the introduction of new topics in the existing syllabi, and we call special attention to the following items.

We have always regarded a course in materia medica as being incomplete that did not include instruction in the apparatus, equipment and appliances included under the title of sick-room supplies, but no opportunity has heretofore offered for practical instruction of this kind. In our reorganized course, 32 hours will be devoted to explaining and illustrating the nature and use of articles of this class. Although technically pertaining to the subject of materia medica, this instruction forms an important part of the students' preparation in commercial pharmacy.



Another qualification that we deem requisite for every well-equipped pharmacist is a general knowledge of the nature and effects of bacteria in their relations with pharmaceutical practice. While we do not regard the conduct of a bacteriological laboratory as pertaining to the business of the ordinary pharmacist, we regard as necessary some knowledge of the principles of bacterial decomposition, sterilization and immunization, and 64 hours have been assigned for instruction in those subjects. While this subject, relating to the activities of plants, pertains technically to botany, it also has close relations with practical pharmacy.

One of the results of this addition of a third-year class will be a reduction in the annual matriculation, since the total capacity of the College is strictly limited. We are therefore obliged to announce that not more than 170 new students can be accepted for the session of 1929-1930.

#### THE UNIVERSITY COURSE

The Department of Health of the City of New York has placed the Bachelor of Science in Pharmacy, graduating from this course, in the position of being eligible to conduct a bacteriological laboratory or to fill similar positions.

The attention of prospective students is directed to the increasing call for graduates of advanced courses, to fill other professional positions. The general application of federal, state and municipal food and drug laws is creating a demand for thoroughly trained pharmaceutical inspectors and analysts. The obligations thus imposed upon manufacturers and merchants must result, and are doing so, in compelling them to employ scientifically trained assistants for responsible services which formerly were often left to incompetent and irresponsible employees. For this field of service the ordinary graduate in pharmacy is wholly unqualified.

To meet these higher requirements, three-, four- and six-year courses of study, leading respectively to the degrees of Pharmaceutical Chemist (Ph.Ch.), Bachelor of Science in Pharmacy (B.S. in Phar.) and Doctor of Pharmacy have been established.

In response to inquiries frequently received as to the advantages of the University Course over the College Course, the following synopsis has been prepared:

1. Members of the University Class only are recognized as students of the University, and certain of the University privileges are open only to them.

2. The University Class attends on five days weekly, instead of three, as does the College Class; and the course includes regular work in academic subjects, conducted by special instructors supplied by the Dean of the Faculty of Columbia College, this work receiving full credit from the University toward the baccalaureate degree.

The introduction of these courses to our University classes has proved highly successful, especially as to the reception accorded them by the students themselves. Not only has this instruction been appreciated by the University Class, but there have been many inquiries as to the possible future introduction of the work to the College Course.

3. For the University Class, the College provides a thorough course of laboratory instruction in advanced Chemistry, Pharmacy and Physics and special courses in Microscopy and Bacteriology, consisting of both theoretical and laboratory instruction.

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4. Not only are the degrees of Pharmaceutical Chemist and Bachelor of Science recognized as of higher rank than that of Graduate in Pharmacy, but the three- and four-year courses for which they are awarded qualify its recipients for many lines of pharmaceutical work that are not open to graduates from the College Course.

## ENTRANCE REQUIREMENTS

### COLLEGE COURSE

The admission to this course is conditional upon the limitations of available space. For many years past, the College has not been able to accommodate all who have applied for admission. For the session of 1929-1930, we shall have accommodations for only 170 applicants for admission to the course leading to the degree of Graduate in Pharmacy.

To be eligible for admission, the candidate must be at least seventeen years of age, and must meet the requirements for the pharmacy student qualifying certificate, as outlined on page 15.

### THE UNIVERSITY COURSES

These are courses of full academic years (September to June) leading to graduation with the other departments of the University, and to the degree of Pharmaceutical Chemist, conferred by the University, at the end of the third year, and to that of Bachelor of Science in Pharmacy at the end of the fourth. It is to be noted here that for the session of 1929-1930 a limited number of fourth-year students can be accommodated.

The requirements for admission to this course are the same as those for Columbia College. The student must be seventeen years of age, must have graduated from a high school within or outside of the State of New York that is accredited by the Education Department of this State, and must present a pharmacy student qualifying certificate from the Education Department of this State, as outlined on page 15.

Under this course, two programs are offered, one leading to the degree of Pharmaceutical Chemist, and one to the degree of Bachelor of Science in Pharmacy.

The evidence of adequate preparation for admission to the University Course in the subjects required on the part of candidates who have not completed a year of college work, *includes both examination and school records.*

The subjects which candidates may offer in fulfillment of these requirements are outlined below. (A "unit" implies the study of a subject for a time equivalent to five hours weekly for one year.)

### PRESCRIBED SUBJECTS

All candidates *must* offer:

ENGLISH	{ 1 (grammar and composition) . . . . .	2 units
	{ 2 (literature) . . . . .	1 unit
MATHEMATICS	{ <i>ai</i> (algebra to quadratics) . . . . .	1 unit
	{ <i>aii</i> (quadratics and beyond) . . . . .	1 unit
	{ <i>c</i> (plane geometry) . . . . .	1 unit

EITHER	
(1) Latin <sup>1</sup> . . . . .	4 units
OR	
(2) { Latin, Greek, French, German, Spanish or Italian . . . . . 3 } { Physics or Chemistry . . . . . 1 } { History . . . . . 1 }	5 units
ELECTIVE SUBJECTS, to make up 15 units . . . . .	
	4 or 5 units

ELECTIVE SUBJECTS

*Group I*

The candidate may offer any of the following subjects not included among his prescribed subjects, without other restriction than that to offer an advanced subject will involve offering, either at the same time or earlier, the corresponding elementary subject.

Biology—See Zoölogy	
The English Bible . . . . .	1 unit
Elementary Greek . . . . .	2 or 3 units
Elementary History . . . . .	1 or 2 units
Drawing (Freehand or Mechanical) . . . . .	1 unit
Music . . . . .	1 unit
Intermediate French . . . . .	1 unit
Intermediate German . . . . .	1 unit
Intermediate Italian . . . . .	1 unit
Intermediate Spanish . . . . .	1 unit
Advanced French . . . . .	1 unit
Advanced German . . . . .	1 unit
Social Science . . . . .	1 unit
Advanced Spanish . . . . .	1 unit
Advanced Mathematics (College) . . . . .	½, 1 or 1½ units
and in the case of candidates not offering 4 units in Latin:	
Elementary Latin . . . . .	2 or 3 units

*Group II*

The candidate may offer not more than 4 units in all from the four subjects following:

Elementary French . . . . .	2 units
Elementary German . . . . .	2 units
Elementary Italian . . . . .	2 units
Elementary Spanish . . . . .	2 units

*Group III*

The candidate may offer not more than 3 units in all from the six subjects following:

Botany . . . . .	1 unit
Chemistry . . . . .	1 unit
Physics . . . . .	1 unit
Physiography . . . . .	1 unit
Shopwork . . . . .	1 unit
Zoölogy . . . . .	1 unit

<sup>1</sup> Greek, 3 units, may be substituted for Latin, in which case 6 elective units must be offered.

## NEW METHOD

Under the "new method," candidates whose school and character records are entirely satisfactory, may meet the examination requirements by means of a psychological test. The school course must include three units in English, three in Mathematics (elementary and intermediate algebra and plane geometry), and at least three units in a foreign language, ancient or modern. It must have been concerned primarily with Languages, Science, Mathematics and History.

## OLD METHOD

Under the "old method," the examination requirements for admission may be satisfied by any one of the three following means, or any approved combination thereof.

1. By the examinations of the College Entrance Board, held in June of each year at Columbia University and at about 150 other educational centers in the United States and abroad.

2. By the examinations conducted at Columbia University in September of each year, by the Director of University Admissions.

(The examination grades in connection with the above two methods are interpreted in the light of the record which students have made in school.)

3. By the examinations given in the high schools by the Education Department of the State of New York to students who have satisfactorily completed certain courses in these high schools. In these examinations, seventy-five per cent will ordinarily be regarded as the lowest passing mark.

For candidates qualifying for admission on the basis of examinations before Columbia University or the College Entrance Board, two methods are open:

- a. *Examination in fifteen units.* A candidate may offer examinations in fifteen units as evidence of his preparation in secondary school subjects.

- b. *Four examination plan.* A candidate who has completed a satisfactory secondary school course with a high degree of proficiency may, by special permission, satisfy the examination requirement by means of "comprehensive examinations" in not less than four subjects including those prescribed for admission.

Candidates entering by the old method are required to take the psychological examination for purposes of record only.

Those contemplating the September, 1929 examinations, must file their applications with the Secretary of Columbia University on or before September 7, 1929. Those who contemplate taking the June, 1930, examinations, must file their applications with the Secretary of the College Entrance Board at 431 West 117th Street, New York, N. Y., on or before May 26, 1930, for points on or east of Mississippi River; May 19, 1930, for points west of Mississippi River; May 5, 1930, for points outside U. S. or Canada. Blank forms of application for either series of examinations may be secured from the respective secretaries.

Every candidate for admission to the University Course should secure a copy of the current *Bulletin on Entrance Examinations and Admission* which may be had upon application to the Secretary of the University.

## ADMISSION TO ADVANCED STANDING

Candidates may be admitted to advanced standing only upon a satisfactory record from their school of previous residence. Provided they are eligible for the pharmacy student qualifying certificate required by the New York State Department of Education, candidates who have completed, without condition, corresponding courses in a pharmacy school registered by the State Education Department, are eligible for admission to the second, third or fourth years, respectively.

## FEES

The fees to be paid by students are subject to change at any time in the discretion of the Trustees. The following schedule is in force for the 1929-1930 session for students accepted in any of the regular courses leading to degrees.

	<i>College Course</i>	<i>University Course</i>
<i>First, Second and Third Years:</i>		
Registration Fee . . . . .	\$5.00	\$5.00
Student Activities . . . . .	10.00	10.00
Breakage Deposit . . . . .	10.00	10.00
Examination Fee . . . . .	10.00	10.00
Tuition . . . . .	250.00	300.00
Laboratory Fees . . . . .	45.00	60.00
 <i>Fourth Year:</i>		
Registration Fee . . . . .		5.00
Breakage Deposit . . . . .		10.00
Examination Fee . . . . .		15.00
Tuition . . . . .		300.00
Laboratory Fees . . . . .		60.00
 <i>Fifth and Sixth Years, Graduate Course</i>		
Registration Fee . . . . .		5.00
Breakage Deposit . . . . .		25.00
Examination Fee . . . . .		20.00
Tuition . . . . .		350.00
Laboratory Fee . . . . .		60.00

*Special Courses.* Students desiring to pursue individual courses as special students will be required to pay at the rate of \$7.50 per point.

*Summer Courses.* The fee for any laboratory course is \$25. for first-, second- and third-year work in the College Course. In the University Course, the fee is \$25. for first- and second-year work and \$50. for third- and fourth-year work.

*Evening Courses.* The fees for the various evening courses will be found among the descriptions of these courses, beginning on page 44.

*Books and Supplies.* It is estimated that an expenditure of \$50. will cover the cost of the textbooks and necessary apparatus required for the entire College Course, and of \$75. for the entire University Course for the Ph.Ch. degree. The heaviest expenditure in all cases will be in the first year; many of the required reference works being used also in subsequent years.

## METHODS OF PAYMENT

*Regular Courses*

One of three methods for the payment of the tuition fee for the year may be elected by the candidate, as indicated below. In this connection, it is to be noted that all are required to pay the registration fee, the breakage deposit, the student activities fee and the first installment of the tuition fee at the time of registration. The dates for registration in the various classes will be found in the academic calendar on page 78.

A. Pay in full at the time of registration.

B. Pay one half of the tuition fee at the time of registration, and the balance on or before January 6, 1930. Under this arrangement, an additional \$3. must be added to the first installment.

C. Pay one third of the tuition fee at the time of registration; one third on or before December 2, 1929, and the balance on or before February 10, 1930. Under this arrangement, an additional \$5.00 must be added to the first installment.

A student, electing Plan B or C makes himself liable to suspension from further attendance if he fails to meet the payments when due.

Second-, third- and fourth-year students, who register after the last day set for their registration (see Academic Calendar) are required to pay an additional fee of \$5.00 for late registration.

*Examination Fees.* Dates upon which fees for examination in course are required will be found in the Academic Calendar.

The rate for re-examination is on the basis of \$5.00 for each subject in September and \$10. for the entire series in the spring.

*Rebates.* The registration and student activities fees shall not be subject to rebate.

In the case of the total withdrawal of a student from the College, a partial return of the tuition fee may be authorized by the Trustees, but in no case shall more than two thirds of the total charge for that year be returned.

*Special, Summer and Evening Courses.* Students registering in any of these courses are required to pay the tuition and other fees *in advance*.

## METHOD OF INSTRUCTION

The instruction of each class during the first and second years of the College Courses occupies three days of the week, the alternate days being free for practical experience in the pharmacy. This arrangement provides a source of income, which is a necessity for many of the students of the College. During the third year, an additional half-day must be devoted to work in the pharmacy laboratory. All students who can do so are urged to devote their third year wholly to College work.

For the purpose of more fully elucidating the subjects presented in the lectures and laboratories and of familiarizing the students therewith, and as a test of attention and progress, provision is made for a complete series of recitations or quizzes by a corps of qualified instructors. The order of topics and the manner of their treatment at these recitations follow closely the courses of instruction

given by the professors in the respective departments. In order that all the members of the class may be drilled as often and as thoroughly as possible, the classes are divided into sections, the instruction of each section being identical, but conducted at different hours.

#### REGULATIONS OF THE BOARD OF TRUSTEES

The rules and regulations stated in this Announcement and those posted on the Bulletin Boards, signed by the Chairman of an authorized committee, or by the Dean, will govern all students of this College until a new Announcement is issued.

#### AUTHORITY OF THE DEAN

The Dean is the executive officer of the Faculty. It is his duty, under the direction of the President, to enforce the rules of the Faculty and of the Board of Trustees and to administer discipline in the case of their violation.

#### REQUIREMENTS FOR ALL REGULAR STUDENTS

##### *Attendance*

Students are particularly requested to be in attendance at the commencement of the course, in order to obtain full benefit from the lectures. No student will be admitted more than two weeks after the opening of the term, and no member of the third- and fourth-year classes will be admitted later than one week after the opening, except by special permission of the Faculty.

Every student must attend during ninety per cent of the hours of instruction in each year, and during eighty per cent of those of each exercise. *The lectures and recitations in a subject constitute one "exercise."* For being late twice at daily opening the student will be charged with one absence. *For failure to comply with this condition, the student will forfeit the privilege of presenting himself for examination.*

Computation of attendance records will be based upon the total number of hours assigned a given course (page 28) during the academic year.

##### *Advancement in Classes*

Advancement from one class to the next requires that the student successfully pass an examination in all the subjects taught during the preceding year, the passing mark being seventy-five per cent, although the Faculty may admit a student to the next class conditioned in a single subject. It is to be particularly noted that in deciding upon the qualifications of candidates, their term's work and their character as students will be given due consideration.

Those students who fail to pass these examinations—but *not those* who have failed, without excuse, to present themselves thereat—will be allowed to undergo a single supplementary examination to be held as announced on page 78, provided, however, that they did not fail in a majority of their subjects. Students failing in a majority of their subjects will be required to repeat their entire course, provided, however, that such students may be refused re-matriculation if, in the judgment of the Faculty, they are not qualified to be students of this College.

A student who fails in a laboratory course must repeat such course successfully before being advanced to the higher class. This work must be done during the summer, except in special cases.

By a regulation of the State Education Department, students failing in more than one subject must make good the deficiency at the school where they so failed. Applicants for the supplementary examination must notify the Registrar on or before September 2, 1929.

Candidates for admission to advanced standing must either pass examinations in all the subjects of the preceding year or must produce evidence of having passed successfully examinations equal thereto.

#### REQUIREMENTS FOR GRADUATION

Every person upon whom a degree is conferred by the College or the University must be of good moral character, and must have complied with all requirements for graduation.

Those who fail to appear for examination (after having handed in their names with the examination fee), or who do not pass satisfactorily, will be allowed to present themselves at the following spring examinations on paying an additional fee of \$10 and complying with all other requirements.

Any student who shall have failed three times in three or more subjects at the final examinations for graduation, shall be required to repeat the entire work of the final year before being again admitted to examination. Should the student again fail at the final examination and at the following supplementary examination, he will not be permitted to continue as a student, or to be examined again. Any student failing three times in one or two subjects, shall be required to repeat the entire work of the final year in such subject or subjects before being again admitted to examination.

All students must obtain a rating of seventy-five per cent or higher in every department in which they may be examined. Any student failing in one or more departments, but not in laboratory courses, may present himself for re-examination therein at the supplementary examination held in September, or at the next regular spring examination. If successful, he will be graduated without re-examination in the other departments. Failure in a laboratory course will necessitate the repeating of that course, which repetition must occur during the summer vacation, except in special cases. See schedule on page 43.

Students of the third-year University Class failing in a laboratory course of a single department may be permitted to remove this failure during the Summer Laboratory Session. Students of this class failing in the laboratory courses of more than one department will be required to repeat in full those courses in which they fail, during the next regular session.

#### PRIZES AND SCHOLARSHIPS

The College reserves the right to withhold the award of any scholarship or prize, if in its opinion, no candidate has exhibited qualifications justifying the award.



**HONOR ROLL.** The College Classes and the University Classes shall have separate and distinct honor rolls. Those securing an average of 90 per cent or over in the year's work, shall constitute the honor rolls of their respective classes.

**TRUSTEES' PRIZES.** The Board of Trustees offers annually, to be presented at Commencement, three prizes of \$100. each, for the highest rating secured in competitive examination in the three departments of Chemistry, Pharmacy and Materia Medica. These competitive examinations are open to those members of the graduating class who have attained positions on the honor roll of the College Course. (If the number of these honor students be less than thirteen, a sufficient number of graduates having the next highest averages to make that number shall be permitted to compete for these prizes). A certificate, stating the honor for which the prize has been awarded, is also presented to each of the recipients.

**ALUMNI ASSOCIATION PRIZES.** The Alumni Fund of the College of Pharmacy provides annually for a gold, a silver and a bronze medal to be presented at Commencement to the three students having respectively attained the first, second and third highest standings in all branches taught during the third year of the College Course.

This Fund also provides for five additional prizes awarded annually on "Alumni Day" to members of the first- and second-year classes of the College Course, as follows: *Torsion Balance*, awarded to that second-year student who has secured the highest standing during the work of the two years; a copy of *The United States Dispensatory* to that student who has secured the highest standing during the work of the second year; a copy of Culbreth's *Materia Medica* awarded to that student securing the second highest standing in the work of the second year; a copy of *Army's Principles of Pharmacy* to that student who has secured the highest standing in the work of the first year, and a copy of Sadtler, Coblenz & Hostmann's *Pharmaceutical Chemistry* to that student who has secured the second highest standing in the work of the first year.

In the event that the winner of the *Torsion Balance* has the highest record for the second year, then *The United States Dispensatory* and Culbreth's *Materia Medica* shall be awarded respectively to the second and third member of the honor roll.

**MAX J. BREITENBACH PRIZE.** A cash prize of \$200, accompanied by a certificate, offered annually for the highest proficiency in the Junior (third year) University Class. This prize is provided for in perpetuity from the interest of funds bequeathed to the College by the late Max J. Breitenbach, for many years a devoted trustee.

**KAPPA PSI PRIZE.** The Gamma Chapter of the Kappa Psi Fraternity offers annually a gold medal to be awarded to that Pharmaceutical Chemist not receiving either the Breitenbach prize or the Seabury Scholarship who attains the highest standing throughout the three years of the course.

**LILLIAN LEITERMAN PRIZE.** A gold medal, offered annually by Miss Lillian Leiterman (1911), to that woman member of the graduating class who has maintained the highest standing throughout the entire three years of the College Course.

**J. LEON LASCOFF PRIZES.** Life membership in the American Pharmaceutical Association and in a State Pharmaceutical Association, offered annually by Trustee J. Leon Lascoff to the two members of the graduating class in the College

Course who have been prominent in student activities, who have maintained a high degree of general scholarship, and who are adjudged by the Faculty to be worthy of such awards.

**TRUSTEES' SCHOLARSHIPS.** To the four students who maintain the highest proficiency in their respective classes during the first and second years of the College and University Courses, the Board of Trustees of the College annually award scholarships for one year's tuition, to be applied to the following session of their respective courses.

**GEORGE J. SEABURY SCHOLARSHIP.** This scholarship has been founded by Dr. Henry C. Lovis, in memory of his uncle, Mr. George J. Seabury, for many years a member and patron of the College. It provides for the tuition, during the Senior (fourth) year of the University course, of that member of this class who has maintained the highest standing during the three years, provided, however, that such student is eligible for the degree of B.S. in Phar., and shall not receive both this scholarship and the Max J. Breitenbach prize.

**ISAAC PLAUT FELLOWSHIP.** This fellowship for the encouragement of graduate study and original research was founded by Mr. Albert Plaut, in memory of his father, Isaac Plaut.

Candidates for this fellowship must have secured the degree of B.S. in Pharmacy at this College, and must also possess credit for a year's study of a foreign language, equivalent to that of the first year at Columbia College.

It provides for a year of study at a European school or university by that Bachelor of Science in Pharmacy of this College who shall have shown during his full course of study here the greatest taste and aptitude for original investigation. Should no member of a class be deemed worthy of the award, it will be withheld.

The fellow shall be appointed by the Council of the University upon the nomination of the Trustees of the College of Pharmacy. He shall attend a foreign institution to be selected by himself and approved by the Faculty of the College of Pharmacy, and shall pursue a course of study approved by the Faculty. At the close of his incumbency he shall present to the Faculty a written report of his work.

The fellowship payment shall be made in three equal installments, one on June 15, one on November 1, and one on March 1, provided that the fellow continues faithfully to pursue the work undertaken. In case of failure so to do, he shall forfeit all further privileges and emoluments conferred upon him by his appointment to the fellowship, and the Trustees of the College of Pharmacy may declare the fellowship vacant.

Since its foundation, the following Plaut Fellows have continued their studies towards the degree of Ph.D.

Moritz A. Dittmar, B.S., 1920, Ph.D., University of Bern, Switzerland, 1922. Assistant Superintendent of the laboratories of Lehn and Fink.

Herbert C. Kassner, B.S., 1921, Ph.D., University of London, England, 1924. Associate Professor of Chemistry, Columbia University, College of Pharmacy.

Helen A. Timmermann, B.S., 1925, Ph.D., University of London, England, 1927. Instructor in Materia Medica, Columbia University, College of Pharmacy 1927 to 1929.

Fred Levine, B.S., 1927, Samuel Goldberg, B.S., 1928, graduate students at the University of London, England.

N.B.—Competition for the Kappa Psi Prize, the Seabury Scholarship and the Plaut Fellowship is open only to those students who take their entire course at this College.

LOUIS SPENCER LEVY RESEARCH SCHOLARSHIP. This scholarship has been provided by Mr. Louis Spencer Levy for a period of two years, beginning with the session of 1928–1929. It affords free tuition to that B.S. or Ph.Ch. who is deemed qualified by the Faculty to do research work and who will devote the greater portion of his time to investigations of the effect and usefulness of ultra-violet radiations in the field of essential oils and perfume materials, this work to be done under the direction of the head of the Department of Pharmacy.

E. R. SQUIBB PRIZE. This is an annual cash prize of \$100., offered by Messrs. E. R. Squibb & Sons, in memory of Dr. E. R. Squibb. It is awarded to that Graduate in Pharmacy who exhibits the greatest proficiency in Analytical Chemistry during his third year, as determined by the laboratory records.

LOUIS DOHME PRIZE. This is an annual cash prize of \$100., founded by Mr. Ernest Stauffen, in memory of Mr. Louis Dohme. It is awarded to that Graduate in Pharmacy who exhibits the best practical knowledge of the drugs of the United States Pharmacopœia and National Formulary, as determined by the laboratory records and examinations.

JOSEPH WEINSTEIN PRIZE. This prize consists of a compound microscope and is established by the New York Retail Druggists' Association, in memory of Dr. Joseph Weinstein. It is awarded to that Graduate in Pharmacy who has exhibited the greatest proficiency in Analytical Chemistry during the three years, as determined by the laboratory records, and who has not secured any other prize.

ITALIAN PHARMACEUTICAL ASSOCIATION PRIZE. This Association offers annually a gold medal to that Graduate in Pharmacy who has obtained the highest general average in practical laboratory work during the third year.

LEHN and FINK PRIZE. This prize consists of a gold medal, offered by Messrs. Lehn and Fink, of New York City, for the Graduate in Pharmacy attaining the highest standing at the examinations in Pharmacy.

WESTCHESTER COUNTY PHARMACEUTICAL ASSOCIATION PRIZE. This Association offers annually a gold medal to that member of the graduating class of the College Course who has attained the highest general average in practical laboratory work, during the three years in the Department of Pharmacy.

GERMAN APOTHECARY'S ASSOCIATION PRIZE. In commemoration of its foundation in the year 1851, the German Apothecary's Association offers, annually, a gold medal to be awarded to that member of the graduating class who has exhibited during the final year of the College Course the greatest proficiency in the compounding of prescriptions.

OLSHANSKY MEMORIAL MEDAL. This is a gold medal, founded by the students of this College in attendance upon the session of 1923–1924, in memory of their beloved instructor, Jacob Calman Olshansky, whose death occurred during that academic year. This medal is to be awarded annually to that student who has attained the highest average in the final year of the College Course in the subject of Dispensing Pharmacy.

## SYNOPSIS OF STUDIES FOR THE SESSION OF 1929-1930

## COLLEGE COURSE

*First Year*

		Class Hours	Laboratory Hours	Points
MM <sup>7</sup> 1-2	Botany	2	0	4
MM 3-4	Botany	1	4	6
MM 5-6	Posology	1	0	2
Chm. 1-2	General Physics	2	0	4
Chm. 3-4	Inorganic Chemistry	3 $\frac{1}{2}$	0	6 $\frac{1}{2}$
Chm. 5-6	Analytical Chemistry	1 $\frac{1}{2}$	3	4
Phr. 1-2	Theory of Pharmacy	3	0	6
Phr. 3	Manufacturing Pharmacy	1	3	2 $\frac{1}{2}$
Phr. 8	Dispensing Pharmacy	1	3	2 $\frac{1}{2}$

*Second Year*

MM 53-54	Pharmacognosy	0	3	3
MM 57-58	Human Physiology and Hygiene	2	0	4
MM 59-60	Microbiology	1	1	3
Chm. 51-52	General Physics	1	0	2
Chm. 55-56	Inorganic Chemistry	3	0	6
Chm. 59-60	Analytical Chemistry	0	3	3
Phr. 51-52	Theory of Pharmacy <i>+ Labs.</i>	3	0	6
Phr. 54	Manufacturing Pharmacy	1	3	2 $\frac{1}{2}$
Phr. 55	Dispensing Pharmacy	1	3	2 $\frac{1}{2}$
Phr. 59-60	Pharmaceutical Jurisprudence and Commercial Pharmacy	1 $\frac{1}{2}$	1 $\frac{1}{2}$	4 $\frac{1}{2}$

*Third Year*

MM 101-102	Materia Medica	3	0	6
MM 103-104	Toxicology	1	0	2
MM 109-110	Pharmaceutical Sundries	1	0	2
Chm. 103-104	Organic Chemistry	4 3 $\frac{1}{2}$	0	7 $\frac{1}{2}$
Chm. 107-108	Newer Remedies	1 $\frac{1}{2}$	0	3 $\frac{1}{2}$
Chm. 109 (110)	Analytical Chemistry	0	6	3
Phr. 101-102	Theoretical Pharmacy	3	0	6
Phr. 103-104	Theoretical Dispensing Pharmacy	2	0	4
Phr. 105 (106)	Manufacturing Pharmacy	0	6	3
Phr. 107-108	Dispensing Pharmacy	0	4	4
* Phr. 115-116	Business Pharmacy and Jurisprudence	1 $\frac{1}{2}$ 3	1 $\frac{1}{2}$	6 $\frac{1}{2}$

## UNIVERSITY COURSE

*First Year*

MM 1-2	Botany	2	0	4
MM 7 $\frac{1}{8}$	Posology	$\frac{1}{2}$	0	1
MM 9-10	Plant Morphology and Histology	1	4 $\frac{1}{2}$	6 $\frac{1}{2}$
Chm. 1-2	General Physics	2	0	4
Chm. 3-4	Inorganic Chemistry	3 $\frac{1}{2}$	0	6 $\frac{1}{2}$

3 class hours are scheduled for Indep. College class & only 2 hrs for univ. class. See pages 74, 75, 76

		Class Hours	Laboratory Hours	Points
Chm. 7-8	Analytical Chemistry	1 $\frac{1}{2}$	3	4
Phr. 1-2	Theory of Pharmacy	3	0	6
Phr. 5	Manufacturing Pharmacy	1	5	3 $\frac{1}{2}$
Phr. 10	Dispensing Pharmacy	1	5	3 $\frac{1}{2}$
Coll. 1-2	English	3	0	6
Coll. 3-4	American Government	3	0	6

*Second Year*

MM 55-56	Macroscopic Pharmacognosy	0	2	2
MM 57-58	Human Physiology and Hygiene	2	0	4
MM 61-62	Bacteriology	1	2	4
Chm. 51-52	General Physics	1	0	2
Chm. 54	Practical Physics	0	4	2
Chm. 55-56	Inorganic Chemistry	3	0	6
Chm. 57-58	Analytical Chemistry	0	3	3
Phr. 51-52	Theory of Pharmacy	3	0	6
Phr. 54	Manufacturing Pharmacy	1	3	2 $\frac{1}{2}$
Phr. 57	Dispensing Pharmacy	1	7	4 $\frac{1}{2}$
Phr. 59-60	Pharmaceutical Jurisprudence and Commercial Pharmacy	1 $\frac{1}{2}$	1 $\frac{1}{2}$	4 $\frac{1}{2}$
Coll. 51-52	German	5	0	10

*Third Year*

MM 101-102	Materia Medica	3	0	6
MM 103-104	Toxicology	1	0	2
MM 111-112	Microscopic Pharmacognosy	<del>1</del>	2 $\frac{1}{2}$	2 $\frac{1}{2}$
Chm. 101-102	Theories of Chemistry	1	0	2
Chm. 103-104	Organic Chemistry	3	0	6
Chm. 106	Analytical Chemistry and Urine Analysis	0	10	10
Phr. 109-110	Theoretical Pharmacy	3	0	6
Phr. 111	Manufacturing Pharmacy	0	5	5
Phr. 113	Practical Dispensing Pharmacy	0	3	3
* Phr. 115-116	<i>B.W.</i> <del>Comm</del> Pharm. and Jurisprudence	1 $\frac{1}{2}$	1 $\frac{1}{2}$	4 $\frac{1}{2}$
Coll. 101-102	Mathematics	2 $\frac{1}{2}$	0	5

*Fourth Year*

MM 152	Applied Pharmacognosy	1 $\frac{1}{2}$	5	6 $\frac{1}{2}$
MM 154	Botanical Taxonomy	0	1 $\frac{1}{2}$	1 $\frac{1}{2}$
MM 155-156	Human Physiology	1	0	2
Chm. 151-152	Inorganic Quantitative Analysis	1	8	10
Chm. 153-154	Food Analysis and Toxicology	1	8	10
Chm. 155-156	Biological Chemistry	1	0	2
Chm. 157-158	Chemical Bibliography	1	0	2
Phr. 151-152	Advanced Pharmacy	1 $\frac{1}{2}$	0	3 $\frac{1}{2}$
Phr. 153-154	Pharmaceutical Assaying	0	7	7

## COURSES OF INSTRUCTION

**Materia Medica 1-2—Botany** (for University Freshmen and first-year College Students). Lectures and recitations 2 hours, 4 points. Professor HART and instructors.

The object of this course is to prepare the student for an understanding of that part of materia medica which relates to vegetable drugs. In the limited time allotted to this study, it is impossible to pursue it in all its departments, and attention is concentrated upon such instruction as will fit the student for professional work in pharmacy. The instruction embraces the morphology of the higher plants, from which nearly all of our vegetable drugs are derived, the terms used in official description, systems of classification, botanical nomenclature, and the relations of the lower to the higher plants.

The lectures are illustrated by large colored charts, and in some cases, with cards in the hands of the students.

For the use of the instructor in the Quiz Room, the Alumni Association has provided an elaborate series of *papier-mâché* models arranged to illustrate structure and dissection.

Textbook: Rusby, *Manual of Botany*.

**Materia Medica 3-4—Botany laboratory** (first-year College Students). Lectures and recitations 1 hour, laboratory 4 hours, 6 points. Professors BALLARD, HART and TAUB and instructors.

*Gross Botany*.—Pharmacognosy, while itself not a science, may be regarded as the art of applying scientific knowledge to the examination of drugs. The theoretical and practical training of the lecture and recitation room is designed to fit the student for such botanical observations as can ordinarily be made with the naked eye.

To enable him to extend these observations by the use of the simple or dissecting and the compound microscope, in preparation for the study of pharmacognosy in the following year, a course of laboratory instruction is provided. This portion of the work is under the direction of Professor Hart, and consists in thoroughly training the students in the use of the simple microscope, and in teaching the structure of all parts of the plant which can be studied with that instrument.

The material for these studies is collected during the summer season, and carefully selected with a view to best illustrating the points brought out in the lecture room.

*Vegetable Histology*.—As ability to properly use a microscope is the foundation of success in all branches of microscopy, first attention is given to a consideration of the parts of the instrument. The uses of the various types of objectives, oculars, illuminating apparatus and mechanical accessories are explained and demonstrated. The details of sectioning, embedding, staining and mounting specimens are illustrated by demonstrations, and at least part of the work is performed by the student.

The course under the direction of Professor Ballard includes the study of plant tissues and the various types of cell contents. A physiological grouping of the tissues is followed by detailed study of the forms, modifications, locations, functions and differences in chemical constitution of the cellular elements concerned in protection, support, absorption, transportation, synthesis and storage. The organic and inorganic cell contents are classified; details of their synthesis are considered and the more commonly used microchemical tests are demonstrated. This work is followed by a detailed study of the arrangement of cells and disposition of cell contents in the various parts and organs of the plant. Each student prepares a set of specimens for use in the course and is required to follow the lecture explanations by personal observation and drawings illustrating the topics considered at each session.

Textbooks: Ballard, *Elements of Vegetable Histology*; Ballard & Hart, *Laboratory Manual*.

**Materia Medica 5-6—Posology** (first-year College Students). Lectures and recitations 1 hour, 2 points. Professor H. TAUB.

The average dosage of U. S. P. and N. F. drugs is considered with the object of teaching the student to recognize an overdose in actual prescription practice. The course covers the analysis

of safe and dangerous prescriptions, approximate equivalents and conversion methods from one system into the other, and dosage of non-official but commonly prescribed synthetic remedies.

**Materia Medica 7-8—Posology** (for University Freshmen). Lectures and recitations  $\frac{1}{2}$  hour, 1 point. Professor H. TAUB.

The relationship in dosage of chemically similar substances and botanically related drugs is considered during the first portion of the course; the material of the College Course is given in brief in the latter half.

**Materia Medica 9-10—Plant morphology and histology** (for University Freshmen). Lectures 1 hour, laboratory  $4\frac{1}{2}$  hours,  $6\frac{1}{2}$  points. Professors BALLARD, HART, TAUB and instructors.

*Morphology.*—The laboratory course in morphology is designed to supplement the lectures in pharmaceutical botany (*MM. 1-2*). It affords practical training in simple plant dissection, both with and without the dissecting microscope, thereby illustrating the topics considered in the above lecture course and fitting students for the advanced studies of pharmacognosy and taxonomy.

*Histology.*—This section of the course includes a detailed study of the various cellular elements considered both as individual tissues and as integral parts of plant organs. This is followed by a systematic review of the derivation of these tissues and organs in the evolution of the higher forms of plant life from the lower. One or more representative orders of the Thallophyta, Bryophyta, Pteridophyta and Spermatophyta will be studied in detail.

Textbooks: Ballard, *Elements of Vegetable Histology*, 2nd Edit.; Ballard and Hart, *Laboratory Manual*; Rusby, *Manual of Botany*; Curtis, *Nature and Development of Plants*.

**Materia Medica 53-54—Pharmacognosy, macroscopic and microscopic** (second-year College Students). Laboratory 3 hours, 3 points. Professors BALLARD, TAUB and instructors.

*Macroscopic.*—This part of the course comprises laboratory instruction in the classification, identification and description of the vegetable drugs of the U. S. Pharmacopœia and National Formulary. The drugs and medicinal products of vegetable origin are grouped according to the parts of the plant from which they are derived and further classified on the basis of medicinal constituents. Each drug receives separate attention in the laboratory and the following details are considered—titles under which the drug is known; botanical, geographical and commercial sources; official description, definition and prevailing standards; liability to adulteration or substitution; preparation for market and proper means of preservation or storage.

Each student receives a typical specimen of the drug under consideration and must retain the same for future reference. At the completion of the course each student possesses a collection of the official crude drugs as his personal property. Proficiency in the identification of the drugs studied is determined by practical examinations at short intervals during the term. Botany (Courses *MM. 1-2, 3-4* or equivalent) are prerequisite to a proper understanding of the work in this course.

Textbooks: Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*.

*Microscopic.*—The preliminary work of this part of the course will consist of a brief review of the cellular elements and cell contents in the parts of plants used as drugs or foods. In this manner the work in vegetable histology of the first year (Course *MM. 3-4*) is coordinated to the more detailed study of microscopical pharmacognosy. Powders prepared from drugs representing different parts of the plant will be used as material for study. By utilization of the sections prepared in the first year it will be possible, in many instances, for the student to compare the section with the powder and thus observe the disposition of the cellular elements *in situ* and the changes in appearance incidental to powdering. The number of specimens studied is necessarily limited by the amount of time which can be given to the work but the subject matter of the course is so arranged that representative rather than extraordinary types are considered. The student is expected to construct and use analytical keys in the identification of the powdered materials examined. Progress in course is determined by a series of practical examinations at short intervals throughout the year and the student must record his observations by drawings made from his specimens.

Textbooks: Ballard, *Elements of Vegetable Histology*; Ballard & Hart, *Laboratory Manual*.

**Materia Medica 55-56—Macroscopic pharmacognosy** (for University Sophomores). Laboratory 2 hours, 2 points. Professors BALLARD and TAUB.

This course includes all of the instruction offered in *Macroscopic Pharmacognosy MM. 53-54*, but in addition many non-official articles of commercial and technical importance are studied. Experience in manufacturing fields has shown that these non-official drugs and drug materials are in frequent use and familiarity with them is especially important in view of their non-inclusion in the Pharmacopœia and National Formulary.

Textbooks: Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*; Youngken, *Pharmacognosy*.

**Materia Medica 57-58—Human physiology and hygiene** (for University Sophomores and second-year College Students). Lectures and recitations 2 hours each, 4 points. Professor RUSBY and instructors.

In addition to the skill in Pharmacognosy required for the selection of drugs, the educated pharmacist is required to possess some general information concerning the properties and uses of the materials which he is engaged in handling and dispensing; that is, of the general classification of medicines. As such classification depends directly upon their physiological properties, a limited and specialized course of instruction in human physiology is provided.

The method consists in so arranging the order of subjects that the student shall be led from the very first lesson to see the manner in which disordered bodily functions may be restored to a healthy condition by the action of medicines, and leads to the immediate classification of the more important remedies, in connection with the study of the organs or systems to the functions of which they apply. While this method gives an accurate knowledge of the facts involved, it permits of the exclusion of a large portion of the subject of physiology, and reduces to a minimum the amount of time expended in acquiring such a knowledge of this department of materia medica as is properly required of the practicing pharmacist.

Textbook: Bachman and Bliss, *Essentials of Physiology*.

**Materia Medica 59-60—Microbiology** (second-year College Students). Lectures and recitations 1 hour, laboratory and demonstrations 1 hour, 3 points. Professor HART and instructors.

This subject constitutes an introduction to the nature, behavior and effects of microorganisms, especially of bacteria. Without entering upon the subject of practical laboratory bacteriology, as is done in the University Course, it discusses the life history of bacteria, and the part that they play in fermentation and decomposition, as well as in disease, and indicates the general nature of the means employed in combatting them, and treats of biological products. The subject of sterilization, as employed in the pharmacy, and the principles of antiseptics and immunization are studied.

The study of yeasts, molds and blood smears is included in this course.

**Materia Medica 61-62—Bacteriology** (for University Sophomores). Lectures 1 hour, laboratory 2 hours, 4 points. Professor HART and instructors.

The bacteriological laboratory in our new building has been fully equipped, and practical work in this important field is taken up. The general principles of the science are taught, and the students cultivate, stain, and study the more important microorganisms. Laboratory methods in the bacterial examination of water, air, milk, ice, sputum and excreta are given, and methods of disinfection and sterilization are practically demonstrated.

Park and Williams, *Pathogenic Microorganisms*.

**Materia Medica 101-102—Materia medica** (for University Juniors and third-year College Students). Lectures and recitations, 3 hours, 6 points. Professors RUSBY, TAUB and instructors.

This course includes instruction in both the inorganic and organic divisions of drugs. In connection with the extension of our course to three years, the instruction in materia medica has been completely reorganized and a new textbook has been written for the students. In the new arrange-



ment, the drugs have been classified in accordance with their medicinal uses. Discussion of the individual drugs covers the official titles, abbreviations, definitions and standards, origin, preparation, preservation, variations in quality and causes of such variation, constituents, properties and uses, preparations and doses. All instruction in description, structure and identification, and the detection of adulterants and impurities is referred to the extensive course in pharmacognosy.

Textbook: Rusby, Bliss and Ballard, *Properties and Uses of Drugs*.

**Materia Medica 103-104—Toxicology** (third-year College and University Classes). Lectures and recitations, 1 hour, 2 points. Professors RUSBY and TAUB and instructors.

The classification of poisons is based upon the physiological action of medicines, taught in the preceding year, and is synoptically presented at the beginning of the course in materia medica. The toxicology of the individual drugs is then taken up in detail in connection with their physiological action and medicinal uses. Experience has shown that by this method the modes of occurrence of poisoning accidents, the poisonous doses, the action of poisons and their rational treatment, are all made more intelligible to the student, and are better impressed upon his memory, than by treating the subject as entirely disconnected from that of materia medica.

Textbook: Rusby, Bliss and Ballard, *Properties and Uses of Drugs*.

**Materia Medica 109-110—Pharmaceutical sundries** (third-year College Students). Lectures 1 hour, 2 points. Professor BALLARD.

This course includes a systematic presentation of the facts of interest to the retail pharmacist in the use and sale of the ordinary sick-room sundries. The course is thus linked with materia medica on the one hand and commercial pharmacy on the other. Among the topics considered are—bandaging and dressing materials, rubber sundries, glass and metal appliances, ligatures and first-aid apparatus.

**Materia Medica 111-112—Microscopic pharmacognosy** (for University Juniors). Lectures  $\frac{1}{2}$  hour, laboratory  $1\frac{1}{2}$  hours,  $2\frac{1}{2}$  points. Professors BALLARD, TAUB and instructors.

This course consists in a detailed study of the histological structure of the several plant organs, followed by a consideration of the characters and adulterants of the commonly used powdered drugs. It includes the preparation of specimens both in sectioned and powdered forms and the application of stains and microchemical tests to the materials so prepared.

Textbook: Ballard, *Laboratory Manual*.

**Materia Medica 152—Applied pharmacognosy** (for University Seniors). 2 hours lecture, 20 hours laboratory for eight weeks beginning March 24, 1930.  $6\frac{1}{2}$  points. Professors BALLARD and HART.

The object of this course is instruction in the methods of applying the principles of microscopy to practical problems apt to be encountered in the average commercial laboratory. The introductory work will consist of a consideration of the general methods employed in microanalysis and the uses of the more common accessories, including polarizing apparatus, measuring apparatus, counting chambers, dark field and vertical illumination. Each student is required to prepare sections of the various types of vegetable materials, using these sections for the demonstration of staining procedures and microchemical reactions. This will be followed by practical and individual work in the qualitative determination of typical drugs and mixtures to which microanalytical methods are applicable. During this work, it is expected that the student will avail himself of the library facilities of the College and freely use the economic drug and food collections of the laboratory for reference and comparison purposes. The aim is to duplicate actual commercial laboratory conditions and to train the worker to depend upon himself. The materials used for teaching purposes will, so far as possible, be commercial products which have been analyzed by microscopical methods.

References: Winton, *Microscopy of Vegetable Foods*; Youngken, *Pharmacognosy*.

**Materia Medica 154—Botanical taxonomy** (for University Seniors). 6 hours laboratory for eight weeks beginning March 24, 1930. 1½ points. Professor RUSBY.

A good working knowledge of the terms used in descriptive botany, such as can be gained by a study of Rusby, *Manual of Botany*, will be found a sufficient preparation for this course.

The object of this course is to present a general idea of the system of flowering plants, and of their classification and determination by the use of descriptive works. The work consists of the laboratory study of types of the principal families, especially those rich in medicinal and poisonous species.

Textbook: Rusby, *Manual of Botany*.

References: Bentham and Hooker, *Genera Plantarum*; Engler and Prantl, *Pflanzenfamilien*.

**Materia Medica 155-156—Human physiology** (for University Seniors). Textbook and conferences 1 hour, 2 points. Miss HOPPING.

This course consists of a series of discussions, based on assigned reading, occupying 1 hour weekly throughout the term.

Textbook: Howell, *Physiology*.

**Chemistry 1-2—General physics** (for University Freshmen and first-year College Students). Lectures and recitations 2 hours, 4 points. Professor A. TAUB and instructors.

This course is so arranged as to emphasize those phases which have a direct bearing upon chemistry and pharmacy. After a consideration of the general properties of matter and the elements of mechanics a number of lectures are devoted to the discussion of the kinetic molecular theory and to wave motion. This is then followed by the consideration of chapters on sound and heat.

The lectures are abundantly illustrated with experiments, the College possessing a fine set of physical apparatus.

Textbook: Stewart, *College Physics*.

**Chemistry 3-4—General inorganic chemistry** (for University Freshmen and first-year College Students). Lectures and recitations 3½ hours, 7 points. Professors ARNY and A. TAUB and instructors.

This course, the beginning of consecutive instruction in chemistry covering three years, is given to the first-year students of both the College and the University Classes. It opens with a careful consideration of the fundamental principles of chemistry, special attention being given to the modern theories concerning valence, chemical equilibrium, oxidation and reduction and atomic structure.

Exercises in writing and calculating chemical equations and work on problems in chemical arithmetic are given in special quiz periods devoted exclusively to these important subjects.

On the side of descriptive chemistry, the non-metals and their compounds are discussed from their cultural, technical and pharmaceutical viewpoints.

Textbooks: Deming, *General Chemistry*, second edition; *U. S. Pharmacopœia*.

**Chemistry 5-6—Analytical chemistry** (first-year College Students). Recitations ½ and laboratory 3 hours, 4 points. Professors SCHAEFER and MAC-SATA and instructors.

The course in analytical chemistry consists of laboratory instruction and is attended by the class in sections. Each student is provided with the necessary equipment, and is required to perform all the operations involved in qualitative chemical analysis. The uses of apparatus, the actions of reagents, and the proper manner of bringing about chemical reactions are illustrated and explained. On account of the fundamental importance to the true understanding of the subject the simple laws governing chemical action in solution and the formation of precipitates, the nature of solution, etc., are explained to the student. At first, and under the guidance of the teacher, the characteristic reactions of the basic components are studied in solution, or in the solid at a high temperature. The phenomena observed are interpreted and discussed, and the conclusions recorded. Later, the reactions are represented by equations. The value of grouping is utilized

and separations and identifications of group members are performed. Finally, all facts required by direct observation are brought together in the systematic procedure for analysis of mixtures. In this recapitulation, individual effort is stimulated by independent work on unknown samples.

Textbook: Schaefer & Bliss, *Qualitative Chemical Analysis*.

**Chemistry 7-8—Analytical chemistry** (for University Freshmen). Recitations  $\frac{1}{2}$  and Laboratory 3 hours, 4 points. Professor KASSNER and instructors.

The student will first be made familiar with laboratory processes by means of a course of experiments in general chemistry, involving the isolation of certain elements, a study of their physical and chemical properties, and of their principal compounds. Simple laws and phenomena will be explained to the student in the course of this work. In this way, experience in manipulation, and a true understanding of the subject will be obtained.

This preliminary course leads to a systematic course in qualitative analysis and during the first year the reactions of the basic ions are studied. The student is taught the separation and identification of these, and finally is required to analyze systematically solutions containing two or more basic ions.

**Chemistry 51-52—General physics** (for University Sophomores and second-year College Students). Lectures and recitations. 1 hour, 2 points. Professors SCHAEFER and A. TAUB.

This course is a continuation of *Chemistry 1-2* (General Physics) and embraces the subjects of magnetism, electricity and light. Special consideration is given to ionization, electrolysis, the electron hypothesis, vacuum tubes, the spectroscope, spectrum analysis, double refraction and the polariscope.

The lectures will be accompanied and made more interesting by many exhibitions and experiments.

Textbook: Stewart, *College Physics*.

**Chemistry 54—Practical physics** (for University Sophomores). Laboratory course 4 hours, 2 points. Professor A. TAUB and instructors.

The course consists of sixteen half-day periods of four hours each, given during the second half of the year.

This work consists of experiments in fundamental physical measurements followed by special work in mechanics, heat, light, sound and electricity. The laboratory is equipped not only with apparatus for routine exercises, but has the appliances necessary for work in colorimetry, spectroscopy, spectrophotometry, refraction, calorimetry and electro-chemistry.

**Chemistry 55-56—Inorganic chemistry** (for University Sophomores, and second-year College Students). Lectures and recitations 3 hours, 6 points. Professors ARNY and A. TAUB and instructors.

This course, a continuation of *Chemistry 3-4* will be devoted to a consideration of the metallic elements and their compounds. It will open with a discussion of ionization and throughout the course, all of the more important principles of theoretical inorganic chemistry will be discussed. In descriptive chemistry, the course will consider all of the more important metallic elements. These will be discussed from the standpoint of modern industrial chemistry.

Textbook: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition.

**Chemistry 57-58—Analytical chemistry** (for University Sophomores). Laboratory course 3 hours, 3 points. Professor KASSNER and instructors.

The course in qualitative analysis begun in the first year is continued through the first half of the second year. The sequence of work is as follows:—(1) the study of the acidic-ions according to an analytical scheme of separation; (2) a systematic method of preliminary testing of unknown compounds; (3) the preparation for analysis of water-insoluble substances; and (4) the complete qualitative analyses of unknown solutions or powders containing two or more compounds.

The second half of the year's work is devoted to a course in volumetric analysis. This begins with the study of general principles and theoretical considerations, the theory of indicators, pH values

and the use of the analytical balance. It continues with the preparation of certain volumetric solutions and their uses in quantitative analysis by (1) neutralization (2) precipitation, (3) oxidation and reduction, and (4) iodimetry.

**Chemistry 59-60—Analytical chemistry** (second-year College Students). Laboratory course 3 hours, 3 points. Professors SCHAEFER and MACSATA and instructors.

The first half of the second-year course is devoted to completing the instruction in qualitative analysis. The discussion of the simpler fundamental laws governing chemical and physical changes in solution, begun in the first year, are followed to conclusion. The preliminary testing and preparation of a sample for analysis, involving solution in solvents other than water, and the procedure for analysis of substances insoluble in water and acids, are studied and practiced. The greater part of the time is devoted to the study of the acidic components.

The second half of the school year is devoted to the theory and practice of volumetric analysis. The proper preparation of volumetric solutions is given consideration and all types of N. S. P. volumetric assays are conducted. The theories of indicators are presented and considerable time is devoted to the calculations involving a knowledge of volumetric analysis.

Textbooks: *U. S. Pharmacopœia*, Schaefer and Bliss, *Qualitative Chemical Analysis*.

**Chemistry 101-102—Theories of chemistry** (for University Juniors). Lectures and recitations 1 hour, 2 points. Professor SCHAEFER.

The object of this course is to bring together, to correlate and to elaborate somewhat the various theories presented to the student in the regular chemistry and physics lectures. Consideration is given to the kinetic theory, the gas laws, the laws governing change of state, the quantitative laws of chemical combination, the atomic hypothesis, the laws of valence, the periodic system, radioactivity, atomic disintegration, atomic structure, solubility, ionization, indicators, equilibrium, electrochemistry and colloids.

Special importance is placed upon the practical application of modern theories of physical chemistry to analytical processes and methods.

Textbook: Chapin, *College Chemistry*.

**Chemistry 103-104—Organic chemistry** (for University Juniors and third-year College Students). Lectures and recitations 3½ hours, 7 points. Professors ARNY and A. TAUB and instructors.

This course, a continuation of *Chemistry 3-4* and *55-56*, will be devoted to a comprehensive study of the carbon compounds; special care being taken to keep the course abreast the new applications of organic chemistry in pharmacy and medicine. The preparation of the more common organic chemicals is given careful consideration and advances under modern methods of research are presented to the class as they are reported.

All the official and the more important unofficial organic pharmaceutical chemicals and medicinal products, notably the newer synthetic remedies, are taken up and classified according to their position in the various organic groups. By this method of classification the subject of organic pharmaceutical chemistry is presented in the same sequence as that of general organic chemistry.

Textbook: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition; *U. S. Pharmacopœia*.

**Chemistry 107-108—Newer remedies** (third-year College Students). Lecture and recitations 1½ hours, 3 points. Professor SCHAEFER and instructors.

The aim of this course is to make the students familiar with the many preparations generally classified as "synthetics" which are prescribed by physicians but which are not official. Most of these preparations are rather recent additions to our materia medica and many of them are covered by patents. The products are not selected because of their medicinal merit but rather because of the frequency with which they are prescribed. Not only will the chemistry of these preparations be considered, but whenever possible, original packages will be shown to the students and the names of their manufacturers given.

Textbooks: *New and Non-official Remedies*.

**Chemistry 109—Analytical chemistry** (third-year College Students). Laboratory 6 hours for  $\frac{1}{2}$  year, 3 points. Professors SCHAEFER, MACSATA and instructors.

This course will be given in six-hour periods to one section during the first half year and to the other section during the second half. This will enable the student to perform operations which require more time than is available in the usual three-hour period. The course will be devoted entirely to pharmaceutical testing and assaying. Some of the more important operations to be carried out are:—The preparation and standardization of volumetric solutions, testing the purity and strength of official chemicals and galenicals, selected gravimetric determinations, iodine values, saponification values, examination of oils, identification of alkaloids. The assay of crude drugs will be given special attention by dividing the section into still smaller groups for this work thus insuring better and more careful supervision. Practice will of course be given in the use of the analytical balance.

Textbooks: *United States Pharmacopœia and National Formulary.*

**Chemistry 110**—Same as *Chemistry 109*, but given during the second half of year.

**Chemistry 106—Analytical chemistry and urine analysis** (for University Juniors). Laboratory, 17 hours for 18 weeks, beginning December 16, 1929, 10 points. Professor KASSNER and instructors.

During the first part of the course, the student is supplied with pure and adulterated samples of official organic chemicals and is required to test them for identity and purity to determine whether they conform to the requirements of the Pharmacopœia, each sample studied representing a typical class of organic compound. This work also involves the determination of congealing, boiling and melting points, fractionations, alcoholometric estimations and other determinations of like character.

The second section of the course is devoted to volumetric analysis, the solutions used being prepared and standardized by the student. The substances assayed include antiseptics, disinfectants, ointments, volatile oils, etc.

The third part of the year's work deals with the assaying of vegetable drugs, including the determination of alkaloids in crude drugs and their pharmaceutical products, crude fiber, soluble extractive, etc.

The above course is concluded with certain miscellaneous assays. The final period is devoted to the analysis of urine.

Textbook: *U. S. Pharmacopœia.*

**Chemistry 151-152—Inorganic quantitative analysis** (for University Seniors). Lectures 1 hour a week for 32 weeks, laboratory, 29 hours a week for 8 weeks, beginning September 23, 1929, 10 points. Professor KASSNER and instructors.

The aim of this course is to train the student to carry out with precision many of the more difficult analyses of chemical and pharmaceutical products.

The laboratory work of the course consists, in the main, of a series of selected gravimetric determinations covering a wide field of substances, chosen to illustrate typical methods of procedure. This work is supplemented by operations involving the use of the viscosimeter, bomb calorimeter, etc.

In the lecture course, methods of quantitative analysis, gravimetric, volumetric, colorimetric, etc., are discussed at length and compared.

Reference books: Clowes and Coleman, *Quantitative Analysis*. Scott, *Standard Methods of Chemical Analysis*.

**Chemistry 153-154—Food analysis and toxicology** (for University Seniors). Lectures 1 hour a week for 32 weeks, laboratory 29 hours a week for 8 weeks, beginning November 18, 1929, 10 points. Professors ARNY and KASSNER and instructor.

In order to give every advantage to the instruction in this department during the fourth year, the College has provided very complete apparatus, which supplies the very best facilities that modern science affords.

The work in this department will cover the following courses:

1. Analysis of various foodstuffs, including milk, butter, flavoring extracts, etc.
2. Chemical and sanitary examination of water.
3. Isolation and detection of organic and inorganic poisons.

In addition to the laboratory work just outlined there will be a lecture course describing the various chemical and physical methods of food examination.

Textbooks: Leach, *Food Analysis*; Mason, *Examination of Water*.

Reference Books: Allen, *Commercial Analysis*; Autenrieth-Warren, *Detection of Poisons*.

**Pharmacy 1-2—Theory of pharmacy (including metrology and pharmaceutical arithmetic)** (first-year College and University Classes). Lectures 2 hours, Recitation 1 hour. Professors WIMMER, BROWN, CARTER and instructors. 6 points.

This course introduces the student to the fundamentals of pharmaceutical science. It includes a series of lectures on the history of pharmacy, beginning with the Egyptian age and tracing it through the Roman, Arabian and European periods up to the present time. Special stress is laid on the historical development of American pharmacy, its organization and its code of ethics.

The course continues with the study of elementary pharmaceutical operations, such as evaporation, distillation, sublimation, solution, crystallization, precipitation, filtration, etc. The lectures are profusely illustrated by exhibitions of apparatus and lantern slides.

The lectures in pharmaceutical arithmetic begin with the subject of metrology and cover the simpler kind and type of calculation used in pharmacy.

Textbooks: *U. S. Pharmacopœia X*; Arny's *Principles of Pharmacy*; Sturmer, *Pharmaceutical Arithmetic*.

**Pharmacy 3—Manufacturing pharmacy laboratory** (first-year College Class). Laboratory course, 3 hours, Recitation 1 hour, 16 weeks beginning September 24, 1929. Professors BROWN, DORFMAN and instructors. 2½ points.

The work of this course is elementary in nature and affords students the opportunity to apply practically their theoretical knowledge of the different systems of weights and measures, the determination of the specific gravities of various substances, the determination of alcoholic contents of liquids, the purification and granulation of salts and the manufacture of simple galenical preparations.

Textbooks: Diekman and Wimmer, *Manufacturing Pharmacy Laboratory Notes* and *U. S. Pharmacopœia*.

**Pharmacy 5—Manufacturing pharmacy laboratory** (Freshmen University Class). Laboratory course, 5 hours, Recitation 1 hour, 16 weeks beginning September 24, 1929. Professor CARTER and instructors. 3½ points.

The work of this course is identical with that outlined under course 3 for the first-year College Class, with an additional two hours of laboratory work. It is the purpose of this course not only to provide the University student with the same work that is done by the College student, but also to give him additional time to the performance of such work as pertains to retail pharmacy, inasmuch as the work of his third year will be essentially devoted to operations pertaining to the manufacture of chemicals on a large scale.

Textbooks: Diekman and Wimmer, *Manufacturing Pharmacy Laboratory Notes* and *U. S. Pharmacopœia*.

**Pharmacy 8—Dispensing pharmacy laboratory** (first-year College Class). Laboratory course, 3 hours, Recitation 1 hour, 16 weeks beginning January 28, 1930. Professors BROWN, DORFMAN and instructors. 2½ points.

This course embraces general methods of compounding pills, troches, bacilli, emulsions, ointments, suppositories and the simpler types of prescriptions. It includes theoretical instruction

and training in practical work. The habits of neatness and, above all, of accuracy acquired by the students is of direct and immediate advantage to them in rendering their services more valuable.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes, U. S. Pharmacopœia* and *National Formulary*.

**Pharmacy 10—Dispensing pharmacy laboratory** (Freshman University Class). Laboratory course, 5 hours, Recitation 1 hour, 16 weeks beginning January 28, 1930. Professor CARTER and instructors. 3½ points.

The work of the dispensing pharmacy laboratory course for the freshman University Class is identical with that outlined under course 8 for the first-year College Class, with an additional two hours of laboratory work.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes, U. S. Pharmacopœia* and *National Formulary*.

**Pharmacy 51-52—Theoretical pharmacy (including pharmaceutical Latin)** (second-year College and University Classes). Lectures, 2 hours, Recitation 1 hour. Professors WIMMER, DORFMAN and instructors. 6 points.

During the first semester of this course, one hour weekly is devoted to the general methods of manufacturing liquid, solid and semi-solid pharmaceutical preparations. The general principles involved in the manufacture of fluidextracts, tinctures, syrups, elixirs, masses, pills, etc. are studied in detail. The other hour of lecture is given over to pharmaceutical Latin, when principles of etymology, construction of sentences and grammar, necessary to an intelligent understanding of Latin used in prescriptions, are studied.

During the second semester, the study of the solid and semi-solid preparations of the United States Pharmacopœia and National Formulary is begun and completed.

Textbooks: *U. S. Pharmacopœia X, National Formulary V, Sturmer, Pharmaceutical Latin.*

**Pharmacy 55—Dispensing pharmacy laboratory** (second-year College Class). Laboratory course, 3 hours, Recitation 1 hour, 16 weeks beginning September 23, 1929. Professors BROWN, DORFMAN and instructors. 2½ points.

The work in the dispensing pharmacy laboratory is a continuation of the work of the first year. It deals more especially with prescriptions and includes the compounding and dispensing of the various types requiring technical knowledge and skill. Consideration is given to tablet triturates, mucilages, mixtures, the filling of capsules, cachets, collapsible tubes, etc. General instruction is given in the reading and interpretation of prescriptions, the recognition of the various constituents, of their ingredients, together with the proper methods and manner of dispensing them.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes; Scoville, "The Art of Compounding," U. S. Pharmacopœia* and *National Formulary*.

**Pharmacy 57—Dispensing pharmacy laboratory** (Sophomore University Class). Laboratory course, 7 hours, Recitation 1 hour, 16 weeks beginning September 23, 1929. Professors BROWN, CARTER and instructors. 4½ points.

The work of this course is divided into two laboratory periods, one of three hours which covers all of the work as outlined under course 55 of the second-year College Class, and one of four hours consisting of the compounding and dispensing of classes of preparations such as mixtures, draughts, lotions, solutions, emulsions, confections and jellies, pills, boli, dragees, lozenges, pastilles, lamels and orbicules, compressed tablets, powders, cachets, suppositories, pessaries and ointments, etc.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes; Scoville, "The Art of Compounding," U. S. Pharmacopœia* and *National Formulary*.

**Pharmacy 54—Manufacturing pharmacy laboratory** (second-year College and University Classes). Laboratory course, 3 hours, Recitation 1 hour, 16 weeks beginning January 27, 1930. Professors BROWN, CARTER, DORFMAN and instructors. 2½ points.

The work in the manufacturing pharmacy laboratory is a continuation of the work of the first year. In general consideration is here given to calcination, crystallization, solubility determinations, percentage solutions, the manufacture of tinctures, fluidextracts and extracts by percolation, and the preparation of various classes of galenicals, together with the manufacture of the more simple chemicals and chemical preparations.

Textbooks: Dickman and Wimmer, *Manufacturing Pharmacy Laboratory Notes* and *U. S. Pharmacopœia*.

**Pharmacy 59-60—Commercial pharmacy and pharmaceutical jurisprudence** (second-year College and University Classes). Lectures 1½ hours. Laboratories 1½ hours. 4½ points. Professor LASCOFF and Lecturer NEUSTAEDTER.

This course in commercial pharmacy is designed to give the student a practical knowledge of the basic principles that underlie the successful management of a business. Owing to a lack of knowledge of these principles, many pharmacists have failed to achieve the degree of success to which their professional knowledge and training entitle them.

The course consists of all the activities incidental to the opening and operation of a retail drug store, including the choice of location, the elements of business administration and store management, insurance, problems of retail merchandising, including the value of discounts, banking, principles of advertising and salesmanship, business correspondence as well as the elements of systematic bookkeeping.

The accounting records are the basic source of data for business management. Accordingly, the course in commercial pharmacy will be devoted largely to the principles underlying the making and interpretation of these records.

The course develops the subject rapidly, devoting its time and emphasis to the foundational problems of accounting. It is built up along the lines and methods of modern accounting practice. The subject matter includes: theories of debit and credit; classification of accounts; underlying principles of various accounting records; business papers and documents used as the basis for first entry; simple problems of the balance sheet and income statement; single entry; controlling accounts; handling sales and purchases; safeguarding the cash; consignments, and related topics. Ample practice for students is provided. The work will be related to the modern pharmacy.

This course is also designed to familiarize the student with the general provisions of state and Federal laws governing the practice of pharmacy. Ordinances and regulations having local application only will likewise be studied.

Special attention will be given to the prohibition and anti-narcotic laws and regulations.

A knowledge of these laws and regulations is essential to the proper and safe conduct of a drug store or pharmacy.

**Pharmacy 101-102—Theoretical pharmacy** (third-year College Class). Lectures 2 hours, Recitation 1 hour. Professors WIMMER, BROWN and instructors. 6 points.

During the first semester, the study of the U. S. Pharmacopœia and National Formulary galenical preparations is continued and completed. Their methods of preparation are individually studied and the reasons for each step taken in their preparation are given. The second semester is devoted to the study of non-official important galenical, cosmetic and toilet preparations, as well as to the study of the pharmacy of individual substances used in prescriptions.

Textbooks: *U. S. Pharmacopœia*, *National Formulary V*, *American Pharmaceutical Association Recipe Book*.

**Pharmacy 103-104—Theoretical dispensing pharmacy** (third-year College Class). Lectures 1 hour, Recitation 1 hour. Professor WIMMER and instructors. 4 points.

This course is devoted in the main to the study of the problems encountered by the pharmacist in his prescription work. Prescriptions of all kinds, especially such as present some difficulties, are studied with the aid of lantern slides. The numerous incompatibilities of present-day prescription work are discussed, as well as ways of avoiding or overcoming them. The subject of Homeopathy receives the attention it deserves.

Textbooks: Scoville, *The Art of Compounding*; Ruddiman, *Incompatibilities*.



**Pharmacy 107-108—Dispensing pharmacy laboratory** (third-year College Class). Laboratory course, 4 hours. Professors BROWN, DORFMAN and instructors. 4 points.

The work in the dispensing pharmacy laboratory deals particularly with the various phases of prescription dispensing, such as checking, labeling, pricing and delivery, etc. The all-important subject of chemical, pharmaceutical and therapeutical incompatibilities is thoroughly studied. The continual introduction of new remedies renders the subject of prescription incompatibilities a never-ending study, and it is the aim of this course to qualify its graduates to keep pace with discovery.

Textbooks: Ruddiman, *Incompatibles in Prescriptions*; Diekman and Wimmer, *Pharmacy Notes*.

**Pharmacy 105—Manufacturing pharmacy laboratory** (third-year College Class). Laboratory course 16 weeks (two sections alternating) 6 hours. Professors BROWN, DORFMAN and instructors. 3 points.

The work of this course is a continuation of the work of the second year. Many inorganic and organic pharmaceutical preparations and salts are manufactured. In addition, galenicals and toilet preparations are compounded. Furthermore, the student will ascertain the identity of various chemicals and galenicals.

Textbooks: *Pharmacopœia of the United States, National Formulary, National Dispensatory*; Diekman and Wimmer, *Pharmacy Notes*.

**Pharmacy 106**—Same as Pharmacy 105, but given during second half of year.

**Pharmacy 115-116—Business pharmacy** (third-year College Class). Lectures ~~1½~~ hours, Laboratory ~~1½~~ hours. Professor LASCOFF, Lecturer NEUSTAEDTER and visiting lecturers. ~~4½~~ points. *pts*

This course will consist of a more detailed development of *Pharmacy 59-60*. The lectures will be on practical subjects, handled in a manner which will further prepare the student for his requirements as a business man.

Lectures by practical business men will be a feature of the course. This series of lectures will give the student the principles of merchandizing from a business man's viewpoint rather than that of the pedagogue. These lectures, as well as those of the regular course are aimed to give the student a better understanding of contemporary business problems.

An additional series of lectures in pharmaceutical jurisprudence is included in this course.

**Pharmacy 109-110—Theoretical pharmacy** (third-year University Class). Lecture 2 hours, Recitation 1 hour. Professors WIMMER, CARTER and instructors. 6 points.

Same as 3rd College.

**Pharmacy 111—Practical pharmacy—manufacturing pharmacy laboratory** (third-year University Class). Laboratory 12 hours per week for 12 weeks beginning September 23, 1929. Professor CARTER and instructors. 5 points.

This course includes the manufacture of a number of the more difficult Pharmacopœial and National Formulary preparations, as well as of inorganic and organic medicinal remedies. The work is intended to qualify students for positions in pharmaceutical manufacturing establishments.

Textbook: Wimmer, *Manufacturing Pharmacy Notes*.

**Pharmacy 113—Practical dispensing pharmacy** (third-year University Class). Laboratory 3 hours per week for 10 weeks beginning September 23, 1929. Professor CARTER and instructors. 2 points.

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This course embraces a thorough study of the various types of incompatibilities. A large number of prescriptions are compounded which illustrate how some incompatibilities may be avoided or overcome.

Textbooks: Diekman and Wimmer, *Incompatibilities*; Ruddiman, *Incompatibilities in Prescriptions*.

**Pharmacy 151-152—Advanced pharmacy** (fourth-year University Class). Lecture 1½ hours. Professor WIMMER. 3 points.

This course is devoted to a detailed study of pharmaceutical, chemical and biological assay methods of vegetable and animal drugs, as well as of methods for their identification. It includes the newer methods employed, such as the standardization of tannin-containing drugs by the agglutination test, of saponin-containing drugs by the determination of their haemolytic indices, etc.

A portion of the lecture course is devoted to a study of essential oils, while especial emphasis is laid upon official oils. Those of importance in the essential oil industry are included.

In a series of seminars, students are required to prepare and present before the professors and instructors in the department, papers on current topics of interest pertaining to pharmaceutical and allied sciences.

Textbooks: Fuller's *Analysis of Drugs and Medicines*; *U. S. Pharmacopœia*; *National Formulary V*; Gildemeister and Hoffman, *The Volatile Oils*.

**Pharmacy 153-154—Pharmaceutical assaying** (fourth-year University Class). 8 weeks beginning January 27, 1930. Laboratory, 7 hours. Professors WIMMER, CARTER and instructors. 7 points.

This course is intended to prepare the student for work as a drug analyst. The entire class carries out a proximate analysis of a vegetable drug. Individual problems in assay work of the most varied and difficult kind are assigned and the student is, to a considerable extent, left to his own resources. The work embraces assays of galenicals, flavoring extracts, toilet preparations, cosmetics, medicinal gauzes, etc.

Textbooks: Fuller's *Analysis of Drugs and Medicines*; Nelson's *Introduction to the Analysis of Drugs and Medicines*; *Current Literature*.

**Chemistry 155-156—Biological chemistry** (for University Seniors). Lectures 1 hour, 2 points. Dr. KARSHAN.

The instruction in inorganic and organic analysis relates to the examination of substances disconnected from the living body, but the competent analyst must be prepared to consider and act upon a knowledge of the natural changes which substances undergo when absorbed into the living body, as well as the natural products there originating.

**Chemistry 157-158—Chemical and general bibliography** (for University Seniors). Lectures and conferences, 1 hour, 2 points. Professors ARNY and KASSNER.

This course will consist of lectures on the source books of chemistry, pharmacy, botany and cognate sciences and on the periodical literature on the same subjects. At the conferences, special themes will be assigned to each student for research during spare hours.

**Coll. 1-2—English** (for University Freshmen). Lectures and recitations, 3 hours, 6 points. Lecturer MCJIMSEY.

This is the Columbia College Course "A1-A2, in English Composition and Literature," required of all freshmen at that College.

**Coll. 3-4—American government** (for University Freshmen). Lectures and recitations, 3 hours, 6 points. Lecturer MCJIMSEY.

This is the Columbia College Course *Government 1-2—American Government*. It constitutes a general survey of the most persistent problems of American government—national, state, and

local—considering problems of political organization in the first semester, and problems of administrative organization and personnel, and those related to the functions of finance, justice, the relation of government to economic life, and foreign relations in the second semester.

**Coll. 51-52—German** (for University Sophomores). Lectures and recitations, 5 hours, 10 points. Lecturer INGENHUETT.

This is an introductory course in German.

**Coll. 101-102—Mathematics** (for University Juniors). 5 points. Lecturer McJIMSEY.

This course comprises the Columbia College Course *Mathematics A1, Trigonometry and A6r, Solid Geometry*.

## SUMMER LABORATORY COURSES

These courses are designed to assist students who have failed at the spring examinations to prepare for those of the fall, and to provide instruction for special students in the use of the microscope, in the examination of drugs and in pharmaceutical processes.

It will thus be seen that the work is not definitely fixed, but is made sufficiently elastic to allow it to be adapted to the special needs of individuals.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

### LABORATORY COURSES 1929

#### *First- and Second-Year Classes*

June 10 to June 29—Department of Chemistry.

July 1 to July 20—Department of Materia Medica.

July 22 to August 10—Department of Pharmacy.

#### *Third-Year Classes*

June 10 to July 15—Department of Chemistry.

July 8 to July 30—Department of Materia Medica.

July 22 to August 19—Department of Pharmacy.

(Five days of seven hours each week)

### SUMMER LABORATORY COURSES 1930

#### *First-, Second- and Third-Year College Classes*

June 9 to June 28—Department of Chemistry.

June 30 to July 19—Department of Materia Medica.

July 21 to August 9—Department of Pharmacy.

## UNIVERSITY CLASSES

University students failing in laboratory courses will be advised by the Registrar regarding the summer laboratory schedules.

## EVENING COURSES

These courses of instruction, although they cannot be substituted for any of our regular work leading to degrees, have proven of great benefit to those who cannot attend during the day, and to those who desire to pursue special courses of study. General educational credits are not allowed for them. They are designed for special students as well as for members of our regular classes.

Candidates may be admitted at any time during the course, at the discretion of the director of the course, but only those who have attended at least 80 per cent of all exercises and who pursue the courses for which they are registered in a satisfactory manner, will receive certificates.

The courses are offered on Monday, Tuesday and Friday of each week during the periods from Monday, October 7th, 1929 to January 17th, 1930 and from January 20, 1930 to Friday, May 9, 1930.

The Registrar's office will be open daily for registration from 10 a. m. to 4 p. m. and on Monday, Tuesday and Friday evenings from 7 to 8 o'clock, during the first two weeks of each semester.

Fees are payable in advance and are not returnable. A registration fee of \$6.00 is required of each student in addition to the fees stated below.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

The following courses are offered:

## CHEMISTRY

**E. Chm. 1-2—Pharmaceutical qualitative analysis.** 1 hour classroom and 2 hours laboratory each week. Fee \$25 each semester. Professor SCHAEFER and Mr. JAYNE.

7:30-10:30 p. m., Friday.

Lecture, 7:30-8:20 p. m.

Laboratory, 8:30-10:30 p. m.

This course, which presupposes a knowledge of general pharmaceutical chemistry is designed to train students in the qualitative tests for metal-ions included in the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

Deposit for breakage, \$10.

**E. Chm. 3-4—Pharmaceutical qualitative analysis.** 1 hour classroom and 2 hours laboratory work each week. Fee \$25 each semester. Professor SCHAEFER and Mr. JAYNE.

7-10 p. m., Friday.

Laboratory, 7-9 p. m.

Lecture, 9:10-10 p. m.

This course is a continuation of *E. Chm. 1-2* with particular reference to the U. S. P. tests for acid-ions. (Conditional on the enrollment of ten students.)

Fee for breakage \$10.

**E. Chm. 5-6—Pharmaceutical volumetric analysis.** 1 hour classroom and 2 hours laboratory work. Fee \$25 each semester. Professor SCHAEFER and Mr. JAYNE.

7-10:30 p. m., Friday.

This course is designed to give training in the volumetric assays of the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

Deposit for breakage, \$10.

**E. Chm. 7—Examination of urine.** First semester, 1 hour lecture and 2 hours laboratory work. Fee \$25. Professor SCHAEFER and Mr. JAYNE.

7:15-10:30 p. m., Friday.

Lecture, 7:20-8:20 p. m., Friday.

Laboratory, 8:30-10:30 p. m., Friday.

It should be noted that to qualify for "Director" of a laboratory, as defined by the Board of Health of the City of New York, a degree at least the equivalent of a B.S., is required.

In this course the qualitative and quantitative chemical tests of normal and pathological urine are studied; also the preparation and standardization of the necessary reagents. (Conditional upon the enrollment of twenty students.)

Deposit for breakage, \$10.

**E. Chm. 8—Examination of urine.** Second semester 1½ hours lecture and 2 hours laboratory work. Fee \$25. Professor SCHAEFER and Mr. JAYNE.

7:30-10 p. m., Friday.

Lecture, 7:30-8 p. m., Friday.

Laboratory, 8:20-10 p. m., Friday.

In this course, a continuation of *E. Chm. 7*, the gravimetric, polariscopic, colorimetric and microscopic examination of urine is studied. (Conditional upon the enrollment of twenty students.)

Deposit for breakage, \$10.

**E. Chm. 9-10—Newer remedies.** 1 hour lecture each week throughout the year. Fee \$30. Professor SCHAEFER.

8:30-9:30 p. m., Friday.

The aim of this course is to give the graduate pharmacist an opportunity to become familiar with the chemistry of many "recent" remedies generally classified as "synthetics" which are prescribed by physicians but which are not official. Most of these preparations are rather recent additions to our materia medica and many of them are covered by patents. The products are not selected because of their medicinal merit but rather because of the frequency with which they are prescribed. Not only will the chemistry of these preparations be considered, but whenever possible, original packages will be shown to the students and the names of their manufacturers given. (Conditional on enrollment of twenty students.)

### *Pharmacy*

**E. Phr. 1-2—Manufacturing pharmacy.** 1½ hours lectures and 1½ hours laboratory work each week. Fee \$35 each semester. Professor BROWN and assistants.

7:30-10:30 p. m., Tuesday.

This course is of value to those desiring to prepare and place upon the market lines of specialties. The course is elastic and designed to meet individual requirements. One may take up the study of an entire series of preparations, or any one preparation in considerable detail. (Conditional upon the enrollment of ten students.)

**E. Phr. 3-4—Manufacture of cosmetics and toilet preparations.** 1 hour lecture and 2 hours laboratory work each week. Fee \$35 each semester. Professor WIMMER and assistants.

7:30-10:30 p. m., Tuesday. Main lecture room, Pharmacy.

This course affords a thorough review of the entire subject of cosmetics and toilet preparations, their composition and manufacture. Face lotions, hair dyes and other hair preparations, face powders and paints, cream (greasy, non-greasy and vanishing), toothwashes and powders, etc., are studied and certain types are manufactured. (Conditional upon the enrollment of ten students.)

A summary of the lecture topics will be furnished upon request.

**E. Phr. 5-6—Perfume materials and perfumery.** 1 hour lecture and 2 hours laboratory work each week. Fee, \$50 each semester. Professor WIMMER and assistants.

7 p. m., Monday. Main Lecture Hall.

This course is of value to persons employed in essential oil houses and perfume manufacturing establishments and others desiring to enter this field. The lectures are illustrated with lantern slides and samples of the materials under discussion are exhibited. The laboratory work comprise the determination of physical constants, testing for impurities, etc. A systematic course in nose-training is included. The second semester consists mainly of practical work.

A summary of the course will be mailed upon request. (Conditional on the enrollment of ten students.)

**E. Phr. 7-8—Ampuls and medicated units.** 1 hour lecture each week. Fee \$30 entire course. Professor CARTER.

7:30-8:30 p. m., Friday.

This course provides for the graduate pharmacist a thorough training in the principles of ampul medication both from the theoretical and practical viewpoints. Briefly, it considers the history, the advantages of parenteral administration, the forms and sizes of ampuls of American and foreign makes, together with the actual demonstration of ampul manufacture including glass blowing, filling, sealing, sterilization, etc. The N. F. ampuls and products of various manufacturers are exhibited and discussed in detail paying strict attention to methods of packaging, storing and dispensing. (Conditional upon the enrollment of twenty students.)

#### BACTERIOLOGY

**E. MM. 1-2—Principles and practice of bacteriology.** 1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester, \$10 breakage deposit. Professor HART and assistants.

7-10 p. m., Tuesday. Lectures, 7-8 p. m. Room 42, Pharmacy.

Laboratory, 8-10 p. m.

This course includes the bacterial examination of sputum, excreta, water, air, milk and ice.

Special attention is given to the standard methods of disinfection and sterilization. The major portion of the time is devoted to the cultivation, morphology and staining properties leading to the identification of the more common pathogenic bacteria. (Conditional on the enrollment of ten students.)

#### BLOOD ANALYSIS

**E. MM. 3-4—**1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester, \$10 breakage deposit. Professor H. TAUB and assistants.

7-10 p. m., Monday. Lecture, 7-8 p. m.

Laboratory, 8-10 p. m.

First semester: Preparation and study of blood smears in health and disease; total and differential counts; special pathology.

Second semester: Blood chemistry, including non-protein and urea nitrogen determinations, sugar, creatinin, uric acid, CO<sub>2</sub>-combining power, chlorides, calcium, cholesterol, and other constituents; hemoglobin estimation, coagulation time; establishing and operating a laboratory. (Conditional on the enrollment of ten students.)

**E. MM. 6—Parasitology.** 1 hour lecture and 2 hours laboratory work each week, second semester. Fee \$40, \$10 breakage deposit. Professor HART and assistants.

7-10 p. m., Tuesday.

In this course chief attention is given to changes from normal to abnormal blood due to parasites as well as the more pathogenic blood and intestinal parasites.

Time is also allotted to the mycology of foods. (Conditional on the enrollment of 10 students.)

**E. MM. 7-8—Microbiology.** 1 hour of lecture and demonstration each week throughout the year. Fee \$30. Professor HART.

7:30-8:30 p. m., Monday.

This course includes the methods of manufacture, standardization, administration and dosage of the commercial biological and bacteriological products and derivatives. Consideration is likewise given to the various methods of sterilization and disinfection as well as the principles of serology and immunology. (Conditional on enrollment of twenty students.)

**E. MM. 9-10—Pharmaceutical sundries.** 1 hour lecture each week throughout the year. Fee \$30. Professor BALLARD.

8:30-9:30 p. m., Monday.

While the retail pharmacist handles many items which are included under the general heading of sick-room supplies, he generally has little opportunity for systematic study of these articles and this is particularly true under present-day conditions. The object of this course of lectures is to acquaint him with the manufacture, differences and applications of bandaging and dressing materials, rubber sundries, glass and metal appliances, sutures and ligatures and the miscellaneous articles stocked in the average retail pharmacy and intended for physician's or household use. The complicated and specialized types of surgical instruments and appliances will not be considered. (Conditional on enrollment of twenty students.)

THE ALUMNI ASSOCIATION OF THE COLLEGE OF  
PHARMACY OF THE CITY OF NEW YORK

OFFICERS AND COMMITTEES, 1929-1930

*President*

FREDERICK D. LASCOFF

*Honorary President*

ADOLPH HENNING

*Vice-Presidents*

HARRY TAUB

H. H. SCHAEFER

RUDOLPH HAUCK

*Secretary*

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CURT P. WIMMER

*Executive Board*

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ARTHUR J. BAUER, 1930.

LESLIE JAYNE, 1931.

VITO CALCAGNO, 1930.

V. K. COMMONS, 1932.

LEWIS N. BROWN, 1931.

MAY O'C. DAVIS, 1932.

F. J. POKORNY, 1932.

*Committee on Papers and Queries*

C. P. WIMMER

ADOLPH HENNING

JOHN H. HECKER

*Delegates to the American Pharmaceutical Association*

GEO. C. DIEKMAN

C. P. WIMMER

ADOLPH HENNING

*Delegates to the New York State Pharmaceutical Association*

CHARLES W. BALLARD

HUGO H. SCHAEFER

VITO CALCAGNO

*Delegates to the New Jersey Pharmaceutical Association*

HAROLD McADAMS

CHARLES W. HOLTON

HARRY E. BISCHOFF

*Delegates to the Connecticut Pharmaceutical Association*

CURT P. WIMMER

HAROLD LEVY

FRANK V. DAMTOFT



## ENDOWMENTS

For one hundred consecutive years the College of Pharmacy of the City of New York has maintained its annual courses of instruction for the education and training of pharmacists. That this instruction has exhibited a steady extension and improvement is clearly recorded in the successive editions of its annual prospectus. That such a result could not have been attained by the use of students' fees, unaided by other resources, will be readily understood by all who have had experience in educational administration. Such assistance may be said to have begun with the generous contribution of free instruction services by Professors Edward R. Squibb, Charles F. Chandler and others, in the early history of the institution, and to have continued with the services of their successors, and the unpaid management of officers and trustees. At various times financial crises have been met by generous donations of money by officers and members, and occasionally by outside friends. In some cases, as when new quarters were to be secured, a new building was to be erected, or herbarium or apparatus to be bought, the sums thus contributed have been large, considering the resources of those contributing.

As indicated in the preceding pages of this *Announcement*, in addition to the regular course of two years, leading to the degree of Ph.G., the College now provides a regular course of three years, leading to the degree of Ph.Ch., with an additional year of optional work, leading to the degree of B.S. in Pharmacy.

It is not to be expected that the scanty revenue derived from the fees of the small number of students who will pursue these advanced studies will begin to provide the necessary means for meeting the additional expenditures. The College must undertake these burdens as its contribution to pharmaceutical education.

Under such conditions, it is felt that an appeal should be made to those who are interested in promoting educational development in America to give their favorable consideration and to lend their financial aid to the present efforts of the College.

Since the actual instruction work of the College calls for the expenditures of our entire income received from students' fees, it follows that we are compelled, like other schools, to seek other sources of income for meeting unusual expenses.

Under the stress of immediate necessity, we have recently completed and occupied an extension to our former building, costing approximately \$300,000. This work was undertaken in the belief that the necessary amount would be contributed by the alumni and friends of the College. Up to the present time, only about one half of the amount has been subscribed, and we present a special appeal for contributions to this cause.

There are also a number of ways in which comparatively small contributions will be immediately productive of great good in specific directions, and several of these are discussed below.

## LIBRARY MAINTENANCE

The library facilities required by men engaged in advanced studies are necessarily much more extensive than those now provided by the College. The re-

search work in which such men will engage will call for a full supply of works of reference, not only in pharmaceutical subjects, but in the sciences contributory to pharmacy. Generous friends of the College, and one such in particular, have made frequent and extensive contributions to the library, but it is highly desirable that an endowment be established that will yield a permanent annual fund of \$500 for such a purpose.

#### APPARATUS

The College, thanks to the generosity of the late Mr. Edward Kemp, possesses a splendid working equipment of physical apparatus, suitable for the ordinary purposes of pharmaceutical education. The advanced work of graduate students will require not only extensive additions, but continuous expenditures for new designs in order to keep pace with discovery and improvement.

An endowment of from \$5,000 to \$10,000 would admirably meet this demand.

#### MUSEUM

With the exception of the National Museum at Washington, there is no extensive pharmaceutical or materia medica museum in this country. Small museums exist in Philadelphia, Detroit, Cincinnati, at the New York Botanical Garden and elsewhere, but nowhere is there a museum proper comparable with those in London and Berlin. Civic pride, if no other consideration, should suffice to secure the establishment in New York City of a museum proportionate with the importance of the city as the port of entry for more than three fourths of the drugs received into the United States. There are, however, other considerations of far greater importance. Scarcely a week passes without more than one inquiry from importers, brokers or merchants, and even from the city and Federal departments, for unobtainable information concerning commercial articles of this class.

There should be some institution to which such inquiries could turn with reasonable certainty of an accurate reply. Furthermore, the ambition to supply Doctors of Pharmacy who are competent to meet all demands made upon them, even for the discovery of desired unknown facts, renders it imperative that a storehouse of materials for investigation should be available. The ideal location for such a museum is with the department of pharmacy of a strong and active university.

Such a museum involves more than a mere collection of labeled articles in cases. It calls for a comprehensive plan providing for future accessions, and for investigating the utility of new products. This calls for a curator with an encyclopedic knowledge of the subject, and qualified to pursue original researches. Such an institution, thus equipped, could provide a continuous supply of original contributions in economic botany, connected upon the one side with sources of sound scientific information and authentication, and upon the other with the material welfare of our people.

A more creditable and permanent monument to its donor could scarcely be conceived. To establish such a museum, and also to provide properly for its care and maintenance, would require from \$100,000 to \$150,000.

## ADDITIONAL PROFESSORSHIPS

The establishment of a number of lecture courses to be served by specialists in their respective subjects is an essential requisite in the work of the final years of an advanced course. Perhaps the most important of such subjects is the history of chemistry and pharmacy. The provision of even a short series of lectures would do much to point the way to investigation in the light of former achievement.

Those desiring to contribute toward any of the purposes named, or others in which they may be interested, will upon request be supplied with a form which may be used for the purpose.

## REGISTER OF GRADUATES

### BACHELORS OF SCIENCE, JUNE 6, 1928

Cody, Catherine Elizabeth  
94 Main Street, New Canaan, Conn.  
Durfee, Olive  
17 West 121st Street, New York, N. Y.  
Goldberg, Samuel  
213-15 Seigel Street, Brooklyn, N. Y.  
Kennedy, Margaret H. Cambridge, N. Y.  
Kitts, Edward Angermire  
Richfield Springs, N. Y.  
Macсата, William J.  
540 West 189th Street, New York, N. Y.  
(6)

### PHARMACEUTICAL CHEMISTS, JUNE 6, 1928

Abramowitz, Abraham  
60 East 3rd Street, New York, N. Y.  
Achilson, Peter Lazarus  
2380 Eighth Avenue, New York, N. Y.  
Adler, Alan  
1761-48th Street, Brooklyn, N. Y.  
Becker, Herbert Chester  
777 Woodward Avenue, Brooklyn, N. Y.  
Beckerman, Sidney  
1697 Lexington Avenue, New York, N. Y.  
Burch, Egbert Alfred  
St. Georges, Bermuda  
Cohen, George  
551 Boulevard, Bayonne, N. J.  
Cohen, Morris  
77 Madison Street, New York, N. Y.  
Cohen, Samuel  
2212 Surf Avenue, Brooklyn, N. Y.  
Dick, Lester Colby  
98 Division Street, Keyport, N. J.  
Drucker, David Morris  
249 Broome Street, New York, N. Y.  
Dubinsky, Isidore  
133 Herzl Street, Brooklyn, N. Y.  
Einhorn, Charles  
180 Riverdale Avenue, Brooklyn, N. Y.  
Eisenberg, Joseph  
592 West Side Avenue, Jersey City, N. J.  
Epstein, George  
105 Nott Avenue, Long Island City, N. Y.  
Fanelli, Dominick  
547 Fourth Avenue, Brooklyn, N. Y.  
Giordano, Herman  
376 Frankfort Street, Orange, N. J.  
Giovannelli, Dominic Louis  
1263 Herkimer Street, Brooklyn, N. Y.  
Givens, Horace T. F.  
6 Cottage Place, Freehold, N. J.

Goldberg, Max  
1368 Myrtle Avenue, Brooklyn, N. Y.  
Golden, Jonas  
11a Louis Place, Brooklyn, N. Y.  
Goldman, Harry  
474 Warwick Street, Brooklyn, N. Y.  
Grebel, Pincus  
417 Grand Street, New York, N. Y.  
Gregorius, Ruth Anna  
301 Central Avenue, Lawrence, L. I.  
Gross, Samuel  
424 East 5th Street, New York, N. Y.  
Gussow, Charles  
1745 Eastburn Avenue, New York, N. Y.  
Herman, Milton  
1464 Seabury Place, New York, N. Y.  
Horin, Maynard  
69 Carll Street, Jamaica, N. Y.  
Horowitz, Simon  
127 East Broadway, New York, N. Y.  
Hurwitz, Morris Herman  
24 Ashford Street, Hartford, Conn.  
Johnson, Cornelius Lee  
828 Corgie Street, Cape May, N. J.  
Kantrowitz, Israel  
195 Madison Street, New York, N. Y.  
Kaplan, Frances Mildred Sharon Valley, Conn.  
Katz, Sidney  
211 East 105th Street, New York, N. Y.  
Kibbe, August Geissel  
162 Egbert Avenue, West New Brighton,  
S. I.  
La Macchia, Mildred Mary  
162 Day Street, New Haven, Conn.  
Lauri, Victor  
210 De Graw Street, Brooklyn, N. Y.  
Lebensart, Manning  
246 West 25th Street, New York, N. Y.  
Leibowitz, Max E.  
348 Jefferson Avenue, Brooklyn, N. Y.  
Levinsohn, Arthur  
26 South Bridge Street, Poughkeepsie, N. Y.  
Levy, Gussie Florence  
512-36th Street, Town of Union, N. J.  
Lippe, Abraham Alfred  
540 Jerome Street, Brooklyn, N. Y.  
Malinoff, Elias  
1324 College Avenue, New York, N. Y.  
Metlitz, Henry Nanuet, N. Y.  
Michaels, Jacob  
1433 Bryant Avenue, New York, N. Y.  
Miller, Isidore H.  
337 Ridge Avenue, Lakewood, N. J.  
Neuman, Harry  
215 Lawrence Place, Paterson, N. J.

- Palmera, Jerome J.  
274 Third Street, Jersey City, N. J.
- Porte, Solomon  
2054-63rd Street, Brooklyn, N. Y.
- Pucci, Guido  
1233 Third Avenue, Woodcliff, N. J.
- Rifkin, Isidor  
2026 Douglass Street, Brooklyn, N. Y.
- Rocker, Philip  
120 East 2nd Street, New York, N. Y.
- Saldinger, Karl  
554 De Kalb Avenue, Brooklyn, N. Y.
- Schimel, Moses  
1315 Brighton Beach Avenue, Brooklyn, N. Y.
- Schmilowitz, Samuel Arthur  
170-23 171st Street, Jamaica, N. Y.
- Schultz, Joseph  
990 Aldus Street, New York, N. Y.
- Schwartz, Max  
1629 Lexington Avenue, New York, N. Y.
- Scowcroft, Ronald  
582 Craig Avenue, Tottenville, N. Y.
- Seng, John Warren  
107 Carroll Place, New Brunswick, N. J.
- Shapiro, Harry  
176 Riverdale Avenue, Brooklyn, N. Y.
- Simon, Isidore Merenholz  
366 Hamilton Avenue, Paterson, N. J.
- Simone, Catharine Bellina  
Croton-on-Hudson, N. Y.
- Sobel, Joseph  
194 East Main Street, Bridgeport, Conn.
- Stauber, Robert August  
R. D. No. 15 Groton, N. Y.
- Steinberg, Abraham  
620 Riverdale Avenue, Brooklyn, N. Y.
- Thierer, Lionel L.  
1189 Sheridan Avenue, New York, N. Y.
- Tiesler, Adolph E.  
93 Rebecca Avenue, Pleasantville, N. Y.
- Topilow, Jacob  
155 West 29th Street, Bayonne, N. J.
- Tuchband, Louis  
Arlington Avenue, Bergenfield, N. J.
- Weisman, Isadore  
37 Kingsbury Street, Waterbury, Conn.
- Weiss, Harry  
1447 Longfellow Avenue, New York, N. Y.
- Zabner, Jacob Samuel  
876 Lake View Road, Cleveland, Ohio
- Zalowitz, Morris D.  
419 Washington Avenue, Elizabeth, N. J.
- (73)
- GRADUATES IN PHARMACY, MAY 31, 1928
- Abramoff, Adolph  
221 East 66th Street, New York, N. Y.
- Adler, Solomon  
779 East 6th Street, New York, N. Y.
- Amazon, Maxwell  
1447 Ocean Parkway, Brooklyn, N. Y.
- Amster, Herman Charles  
693 Monroe Street, Brooklyn, N. Y.
- Appelbaum, Gershon  
1745 Fulton Avenue, New York, N. Y.
- Aronowitz, Louis  
221 East 66th Street, New York, N. Y.
- Atkin, Nathan  
155 Audubon Avenue, New York, N. Y.
- Avirom, Morris  
358 Hart Street, Brooklyn, N. Y.
- Baizer, Louis  
1278 Union Avenue, Apt. 102, New York, N. Y.
- Balaban, Mrs. Chaiah Eisenberg  
333 Sheffield Avenue, Brooklyn, N. Y.
- Beck, Samuel  
140 Trenton Avenue, White Plains, N. Y.
- Becker, Harry  
2112 Harrison Avenue, New York, N. Y.
- Becker, Joseph George  
25-35 Blake Avenue, Brooklyn, N. Y.
- Beeber, Joseph  
134 Clymer Street, Brooklyn, N. Y.
- Bennett, Benjamin Herman  
233 South Second Street, Brooklyn, N. Y.
- Bergman, Israel  
115 St. Marks Place, New York, N. Y.
- Berkowitz, Bernard  
64 Wadsworth Terrace, New York, N. Y.
- Berkowitz, Simon  
92 Rivington Street, New York, N. Y.
- Berman, Louis Leo  
566 Beck Street, New York, N. Y.
- Bernstein, Charles Leo  
216 East 6th Street, New York, N. Y.
- Bernstein, Jesse L.  
1233 Simpson Street, New York, N. Y.
- Berson, Joseph  
651 Marcy Avenue, Brooklyn, N. Y.
- Biller, Moses Leon  
264 Penn Street, Brooklyn, N. Y.
- Bode, Emma  
120 French Street, New Brunswick, N. J.
- Bolker, Abraham  
1926 Pacific Street, Brooklyn, N. Y.
- Botti, Nicholas Albert  
509 Greenwood Avenue, Brooklyn, N. Y.
- Boxer, Hyman  
1709 Bathgate Avenue, New York, N. Y.
- Boxer, Michael  
1997 Hughes Avenue, New York, N. Y.
- Brensilver, David Isidore  
920 Avenue St. John, New York, N. Y.
- Bronstein, Leo  
201 Varet Street, Brooklyn, N. Y.
- Carneol, Herman  
324 East 46th Street, Brooklyn, N. Y.

- Chaifetz, Morris  
49 Rutgers Street, New York, N. Y.
- Chait, Reuben  
352 West 117th Street, New York, N. Y.
- Charney, Abraham  
609 Autumn Avenue, Brooklyn, N. Y.
- Chase, Irving  
890 Fox Street, New York, N. Y.
- Chasnow, Martin  
890 Fox Street, New York, N. Y.
- Cheresh, Edward Julius  
374 South Second Street, Brooklyn, N. Y.
- Chudnowsky, David  
3009 Cooper Avenue, Glendale, N. Y.
- Chuisano, Pasquale Ermin  
34 Bennington Avenue, Freeport, N. Y.
- Cipriano, Robert M.  
512 Greene Avenue, Brooklyn, N. Y.
- Cody, Mary Rose  
94 Main Street, New Canaan, Conn.
- Cohen, Abraham  
216 East 56th Street, Brooklyn, N. Y.
- Cohen, Abraham  
647 Fox Street, New York, N. Y.
- Cohen, Harry Lewis  
611½ Calder Street, Harrisburg, Pa.
- Cohen, Milton  
2519 Clarendon Road, Brooklyn, N. Y.
- Cohen, Philip  
1532 Longfellow Avenue, New York, N. Y.
- Cohen, Sam  
69 Hinsdale Street, Brooklyn, N. Y.
- Cohen, Sigmund  
1549 46th Street, Brooklyn, N. Y.
- Cohen, Solomon  
108 Division Street, c/o Seitz, New York, N. Y.
- Crystal, Adam  
144 Ellery Street, Brooklyn, N. Y.
- David, Solomon  
117 South 4th Street, Brooklyn, N. Y.
- De Filippis, Americo Joseph  
2-B King Street, New York, N. Y.
- De Lalla, Carmelita Anne  
704 Bleecker Street, Utica, N. Y.
- Di Bella, Joseph Vincent  
157-17th Street, West New York, N. J.
- Dubinsky, Jack  
1566 St. Marks Avenue, Brooklyn, N. Y.
- Dubnick, Samuel  
1838 Park Place, Brooklyn, N. Y.
- Dwosky, Nathan  
62 West 124th Street, New York, N. Y.
- Eisenberg, Max  
1284 Amsterdam Avenue, Apt. 12, New York, N. Y.
- Eisler, Abraham Harry  
226 Hart Street, Brooklyn, N. Y.
- Elkowitz, Paul  
368 East 4th Street, New York, N. Y.
- Epstein, Aaron  
576 Chester Street, Brooklyn, N. Y.
- Epstein, Harry  
2920 West 29th Street, Brooklyn, N. Y.
- Errante, Frank Joseph  
389 Shepherd Avenue, Brooklyn, N. Y.
- Feuerstein, Abraham  
481 Warwick Street, Brooklyn, N. Y.
- Finkelstein, Morris  
1047 Avenue St. John, New York, N. Y.
- Fox, Jerry Abe  
879 Elsmere Place, New York, N. Y.
- Franzblau, Max  
2028 Gleason Avenue, Unionport, N. Y.
- Fried, Max B.  
39 Forest Avenue, West Englewood, N. J.
- Fried, Morris David  
104 Havemeyer Street, Brooklyn, N. Y.
- Friedman, Jacob  
89 Aldine Street, Newark, N. J.
- Friedman, Leonard  
105 Post Avenue, New York, N. Y.
- Friedman, Nathan Fisher  
615 West 162nd Street, New York, N. Y.
- Fuchs, Louis  
343 East 16th Street, New York, N. Y.
- Garfinkle, Arthur  
48 East 15th Street, Bayonne, N. J.
- Gargiulo, Dominick Francis  
1869 West 10th Street, Brooklyn, N. Y.
- Gilliar, Frank James  
53 Grace Avenue, Great Neck, N. Y.
- Gimbel, William Breitbart  
565 Cleveland Street, Brooklyn, N. Y.
- Glance, Abraham Louis  
853 East 170th Street, New York, N. Y.
- Glazer, Louis Alfred  
1325 Grant Avenue, New York, N. Y.
- Glick, Meyer  
215 East 4th Street, New York, N. Y.
- Goldberg, Nathan  
529 Hinsdale Street, Brooklyn, N. Y.
- Goldfarb, Harold  
1011 Belmont Avenue, Brooklyn, N. Y.
- Goldman, Hirsch Jacob  
200 Vernon Street, Brooklyn, N. Y.
- Goldman, Joseph  
447 Sheffield Avenue, Brooklyn, N. Y.
- Goozman, Max  
422 East 50th Street, New York, N. Y.
- Goran, Philip  
624 East 6th Street, New York, N. Y.
- Gorset, Abraham Frank  
175 Middleton Street, Brooklyn, N. Y.
- Greenberg, Samuel  
719 Sackman Street, Brooklyn, N. Y.

- Groopman, Harry  
548 Fox Street, New York, N. Y.
- Grossman, Max  
7 Bay 22nd Street, c/o Malin, Brooklyn,  
N. Y.
- Gullo, Nancy Veronica  
148 Hester Street, New York, N. Y.
- Halfin, Herman  
3420 Laron Avenue, Cincinnati, Ohio.
- Halpert, Isidore  
1762-62nd Street, Brooklyn, N. Y.
- Heckman, Alexander  
1763 West 7th Street, Brooklyn, N. Y.
- Heller, Bella  
1379 Teller Avenue, New York, N. Y.
- Hirschman, Hyman  
16-18 East 107th Street, New York, N. Y.
- Hochstadt, Samuel  
508 Williams Avenue, Brooklyn, N. Y.
- Holmes, Herbert  
Cresskill, N. J.
- Howard, Charles Francis  
39 Dewey Avenue, Huntington, L. I.
- Isikowitz, Bernard Morris  
426 Snediker Avenue, Brooklyn, N. Y.
- Israel, Leon Harold  
319 Cherry Street, New York, N. Y.
- Itzkowitz, Harry  
1717-60th Street, Brooklyn, N. Y.
- Itzkowitz, Isidore  
602 Junius Street, Brooklyn, N. Y.
- Janiger, Phoebe  
47 West 112th Street, New York, N. Y.
- Kannry, Irving  
48 East 103rd Street, New York, N. Y.
- Kaplan, Julius  
1382 College Avenue, New York, N. Y.
- Katz, Aaron  
3802 Twelfth Avenue, Brooklyn, N. Y.
- Kerachsky, Isador  
Leonard Bridge, Conn.
- Keylin, Solomon  
1361 Intervale Avenue, New York, N. Y.
- Klinger, Bernard  
1382 St. Johns Place, Brooklyn, N. Y.
- Klinger, Sol  
689 Beck Street, New York, N. Y.
- Koch, Karl  
3540-89th Street, Jackson Heights, L. I.
- Komisaruk, William B.  
367 East 179th Street, New York, N. Y.
- Krause, William  
109 Myrtle Avenue, Port Jefferson, N. Y.
- Kreisel, Jacob  
373 Monroe Street, Brooklyn, N. Y.
- Kunitz, Edward A.  
1280 Walton Avenue, New York, N. Y.
- Kvares, Daniel  
850 Beck Street, New York, N. Y.
- Lacovara, Vincent Anthony  
210 East 7th Street, Brooklyn, N. Y.
- Lager, Samuel  
2079 Mohegan Avenue, New York, N. Y.
- Langberg, Isidore  
1675 Park Place, Brooklyn, N. Y.
- Lazarowitz, Abraham  
557 Timpson Place, New York, N. Y.
- Lefrak, David  
1522 Webster Avenue, New York, N. Y.
- Leitner, Yetta  
1014 Eastern Parkway, Brooklyn, N. Y.
- Lennon, Mary Augusta  
Pawling, N. Y.
- Lev, Max  
419 West 115th Street, New York, N. Y.
- Levine, Esro  
1056 Kelly Street, New York, N. Y.
- Levine, Jesse  
Woodridge, N. Y.
- Levinson, Meyer Jacob  
584 East 137th Street, New York, N. Y.
- Lewis, David Kenneth  
290 West End Avenue, New York, N. Y.
- Lindeman, Henry Otto  
109-36 132nd Street, Richmond Hill, N. Y.
- Lo Presti, Frances  
60 Cedar Avenue, Long Branch, N. J.
- Lortz, Edgar Martin  
279 West Main Street, Ilion, N. Y.
- Luntz, Stanley  
1108 Clark on Avenue, Brooklyn, N. Y.
- Lyons, Roland Frederick  
Lake Placid, N. Y.
- McKaba, Arthur Essad  
134 State Street, Brooklyn, N. Y.
- Margotta, Anna Letitia  
169 Union Avenue, New Rochelle, N. Y.
- Martocci, Amedeo  
151 Bay 49th Street, Brooklyn, N. Y.
- Miceli, Anthony William  
784 Bushwick Avenue, Brooklyn, N. Y.
- Miller, Joseph  
98 Louisa Street, Brooklyn, N. Y.
- Miller, Mina  
717 Crotona Park North, New York, N. Y.
- Moskovitz, Jerome Louis  
231 Norman Street, Bridgeport, Conn.
- Mucelli, Gaetano J.  
288 Essex Street, Brooklyn, N. Y.
- Musso, Frank  
522 Ninth Street, Brooklyn, N. Y.
- Neveloff, Aaron  
46 Hoyt Street, Brooklyn, N. Y.
- Novins, Henry  
523 West 138th Street, New York, N. Y.
- Okrent, John  
2985 Ocean Parkway, Brooklyn, N. Y.
- Olenick, Jacob  
1046 Rutland Road, Brooklyn, N. Y.
- Ornstrat, Leon  
77 West 181st Street, New York, N. Y.
- Orso, Anthony  
R. F. D. No. 2, Hempstead, N. Y.

- Oxman, William  
365 Dumont Avenue, Brooklyn, N. Y.
- Padow, Meyer  
1318 Avenue J, Brooklyn, N. J.
- Pagano, Dominick  
128 East Broadway, New York, N. Y.
- Palen, Richard Gilbert  
44 Pauling Avenue, Cold Springs, N. Y.
- Paulonis, Edward Peter  
1357 Bushwick Avenue, Brooklyn, N. Y.
- Pollack, Jacob Philip  
1023 Lafayette Avenue, Brooklyn, N. Y.
- Pollack, Lawrence  
1556 Hoe Avenue, c/o Salop, New York, N. Y.
- Pollack, Sam  
310 East 4th Street, New York, N. Y.
- Pomerantz, Nathan Joseph  
1637-44th Street, Brooklyn, N. Y.
- Porgoman, Lena  
205 St. Pauls Avenue, Jersey City, N. J.
- Pumo, Anthony  
165 Bleecker Street, Brooklyn, N. Y.
- Rabinowitz, Samuel  
445 Rockaway Parkway, Brooklyn, N. Y.
- Rader, Dora Lillian  
957 Fox Street, New York, N. Y.
- Raia, Emanuel  
1396 Herkimer Street, Brooklyn, N. Y.
- Reifman, Isaac  
1395 Bristow Street, New York, N. Y.
- Reiss, William  
1061 Trinity Avenue, New York, N. Y.
- Reiter, Morris  
156 Avenue C, New York, N. Y.
- Rich, Patsy  
21 Evergreen Avenue, Rye, N. Y.
- Richert, Edward Vincent  
Jericho Turnpike & Ingraham Lane, New Hyde Park, L. I.
- Rinaldi, Charles  
1362-64th Street, Brooklyn, N. Y.
- Rosen, Julius  
28 Warren Street, Ellenville, N. Y.
- Rosenberg, Harry Oscar  
123 Rockaway Parkway, Brooklyn, N. Y.
- Rosenthaler, Malvin  
202-16th Street, College Point, N. Y.
- Rossi, James  
302 Chauncey Street, Brooklyn, N. Y.
- Rothenberg, David  
370 Hinsdale Street, c/o Shapiro, Brooklyn, N. Y.
- Rothfeld, Emanuel  
35 East 110th Street, New York, N. Y.
- Sabella, Vincenza Jeanne  
6023-17th Avenue, Brooklyn, N. Y.
- Sahr, Sydney  
3442-62nd Street, Woodside, N. Y.
- Salerno, Anthony Rocco  
229 East 5th Street, New York, N. Y.
- Samuels, George  
1526 Lincoln Place, Brooklyn, N. Y.
- Santagada, Francis Paul  
193 Broadway, Newburgh, N. Y.
- Sarawaisky, Isadore  
20 Bergen Place, Jamaica, N. Y.
- Satz, Lola  
16 East 106th Street, New York, N. Y.
- Schames, Louis  
470 Miller Avenue, Brooklyn, N. Y.
- Schechner, Louis  
1223 55th Street, Brooklyn, N. Y.
- Schlosberg, Nathan  
4 East 108th Street, New York, N. Y.
- Schmitt, Frederick Ernst  
15 Rochester Avenue, Brooklyn, N. Y.
- Schneider, Milton Solomon  
1059 First Avenue, New York, N. Y.
- Schrage, Joseph  
1568 Macomb's Road, New York, N. Y.
- Schuker, Litman Halbert  
362 Grand Street, Brooklyn, N. Y.
- Schultz, George  
306 East 73rd Street, New York, N. Y.
- Segal, Benjamin  
8705 Bay Parkway, Brooklyn, N. Y.
- Serote, Nathan  
68 Garden Street, Poughkeepsie, N. Y.
- Setaro, Rose Ann  
2839 Fourth Avenue, Astoria, L. I.
- Shaffet, Robert  
7620 Rockaway Boulevard, Woodhaven, L. I.
- Shaftan, Charles S.  
811 Walton Avenue, New York, N. Y.
- Shapiro, Arthur  
312 East 8th Street, New York, N. Y.
- Shaw, Alex  
731 Union Avenue, New York, N. Y.
- Sherman, Barney Bernard  
16 Van Wyck Avenue, Jamaica, N. Y.
- Shucard, Morris  
904 Stone Avenue, Brooklyn, N. Y.
- Sidelsky, Samuel  
237 East 93rd Street, Brooklyn, N. Y.
- Siegel, Isidore  
1910 Marmon Avenue, New York, N. Y.
- Siegel, Max  
778 Driggs Avenue, Brooklyn, N. Y.
- Siegel, Morris  
2017 Lafontaine Avenue, New York, N. Y.
- Sileo, Mario  
1525-75th Street, Brooklyn, N. Y.
- Silver, Benjamin  
1370 Lyman Place, New York, N. Y.
- Silverman, Jacob Ronald  
136 W. 170th Street, New York, N. Y.



- Simeone, Nicholas Ferdinand  
649 Main Street, North Bergen, N. J.
- Singer, Nathan  
988 Simpson Street, c/o McAuliffe  
New York, N. Y.
- Sirulnick, Raphael  
2010 Ocean Avenue, Brooklyn, N. Y.
- Slavin, Isadore  
141 Second Avenue, New York, N. Y.
- Slutsky, Benjamin  
65 Norfolk Street, New York, N. Y.
- Smolowitz, Bernard  
29 West 119th Street, New York, N. Y.
- Sorkenn, Ralph  
307 West 3rd Street, Chester, Pa.
- Steinberg, Eva  
2867 West 27th Street, Brooklyn, N. Y.
- Stillerman, Harry Louis  
842 Sheepshead Bay Road, Brooklyn, N. Y.
- Stock, George Thomas  
Pawling, N. Y.
- Stockvis, George G.  
29 Ibis Street, Forest Hills, L. I.
- Strassberg, Sidney  
544 St. Paul's Place, New York, N. Y.
- Sussman, Henry Nathan  
1956 Crotona Parkway, New York, N. Y.
- Tabachnick, Max Joseph  
178 Hooper Street, Brooklyn, N. Y.
- Talenbloom, Julius  
220 Campbell Avenue, Revere, Mass.
- Tandlich, Henry  
3124 Mermaid Avenue, Coney Island, N. Y.
- Tansky, David  
810 Hunts Point Avenue, New York, N. Y.
- Tapola, Lucille Hylia  
65 Wadsworth Terrace, New York, N. Y.
- Tekel, Benjamin  
617 East 11th Street, New York, N. Y.
- Thimble, Rudolph Naprstek  
40-10 24th Street, Long Island City, N. Y.
- Tobis, Abraham  
832 Whitlock Avenue, New York, N. Y.
- Tolkoff, Paul Samuel  
8 East 107th Street, New York, N. Y.
- Tuman, Robert  
422 East 53rd Street, Brooklyn, N. Y.
- Turetsky, David  
11817 Liberty Avenue, Richmond Hill, N. Y.
- Valentino, Louis Rudolph  
74 President Street, Brooklyn, N. Y.
- Van Stone, Theodore Borden  
350 Main Street, Hackensack, N. J.
- Veprovsky, Lawrence L.  
1430 First Avenue, New York, N. Y.
- Verdrager, David  
541 Flushing Avenue, Brooklyn, N. Y.
- Vitale, Leonida Pasquale  
1637 68th Street, Brooklyn, N. Y.
- Vix, George  
537 East 234th Street, c/o Wolff,  
New York, N. Y.
- Vogel, Joseph  
132-03 Cronston Avenue, Belle Harbor, N. Y.
- Waldinger, David  
318 Rochester Avenue, Brooklyn, N. Y.
- Waterbury, Whitford Newton  
1665 Grand Concourse, New York, N. Y.
- Weber, Roy A.  
304 Sixth Street, West New York, N. J.
- Weinberg, Rubin  
224 South Third Street, Brooklyn, N. Y.
- Weiner, Irving J.  
152 West 176th Street, New York, N. Y.
- Weinstein, Isadore  
860 Southern Boulevard, New York, N. Y.
- Weinstein, Milton  
236 Clinton Street, New York, N. Y.
- Weiss, Alfred Schoen  
641 Vanderbilt Avenue, Brooklyn, N. Y.
- Wieder, Irving Philip  
2844 West 30th Street, Brooklyn, N. Y.
- Wolin, Louis  
9600 Roosevelt Avenue, Corona, N. Y.
- Yanowitz, Irving  
1515 45th Street, Brooklyn, N. Y.
- Yosepowitz, Joseph  
1336 Brook Avenue, New York, N. Y.
- Yudcovich, Jack  
700 East 161st Street, New York, N. Y.
- Zelenko, Alexander Disraeli  
389 Beech Street, Teaneck, N. J.
- Zeltzer, Irving  
553 Williams Avenue, Brooklyn, N. Y.
- Zirin, Benjamin  
75 East 109th Street, New York, N. Y.
- (253)
- PHARMACEUTICAL CHEMISTS, OCTOBER 31, 1928
- Baiczer, Abraham Irving  
1072 Union Avenue, New York, N. Y.
- Brooks, Vernon Hazen  
25 Maple Place, Portchester, N. Y.
- Gattuso, Charles  
22 Rivington Street, New York, N. Y.
- Katzowitz, Morris  
333 Rodney Street, Brooklyn, N. Y.
- Klein, Samuel  
1326-55th Street, Brooklyn, N. Y.
- Montemurro, Thomas  
531-42nd Street, Union City, N. J.
- Rochelson, George  
1416 Stebbins Avenue, New York, N. Y.
- Schutzbank, Victor  
R. F. D. No. 3, Lakewood, N. J.

- Simon, Harry  
28 Gouverneur Street, New York, N. Y.
- Spielman, Samuel  
760 Manida Street, New York, N. Y.  
(10)
- GRADUATES IN PHARMACY, OCTOBER 2, 1928
- Bikofsky, Louis  
313 East 170th Street, New York, N. Y.
- Chasman, Solomon  
132-17th Street, Brooklyn, N. Y.
- Daniel, Blueford Fowler  
Hogansville, Ga.
- Dunst, Morris  
1021-45th Street, Brooklyn, N. Y.
- Durst, Samuel Isidore  
143 Stanton Street, New York, N. Y.
- Gilbert, Jacob Carlman  
6 West 102nd Street, New York, N. Y.
- Gioia, Michael Angelo  
1115 Avenue Z, Brooklyn, N. Y.
- Goldrad, Harry  
1491 Brook Avenue, New York, N. Y.
- Goldstein, Samuel  
89 Glenmore Avenue, Brooklyn, N. Y.
- Greenfarb, Hyman  
1481 Eastern Parkway, Brooklyn, N. Y.
- Jacobowitz, Jacob  
336 East 55th Street, Brooklyn, N. Y.
- Keller, Joseph  
3258-25th Street, Jackson Heights, N. Y.
- Lehrer, Arthur Martin  
1369 East 29th Street, Brooklyn, N. Y.
- Longano, Carmine  
554 Lorimer Street, Brooklyn, N. Y.
- McGraw, Harvey Benedict  
34 Tompkins Street, Cortland, N. Y.
- Manson, Abraham  
63 Columbia Street, New York, N. Y.
- Picheny, Bernard  
213 Clinton Street, New York, N. Y.
- Pierson, Sanford Ralph  
28 South Main Street, Liberty, N. Y.
- Polizzi, Fred Edmund  
230 East 114th Street, New York, N. Y.
- Rosati, John Vincent  
9125-86th Street, Woodhaven, N. Y.
- Sanders, Bernard  
7426 Seventh Avenue, Brooklyn, N. Y.
- Schein, Henry  
244 Roebling Street, Brooklyn, N. Y.
- Smith, Edward Joseph  
1303 Brighton Beach Avenue, Brooklyn, N. Y.
- Sorin, Mae  
2166 Eighth Avenue, New York, N. Y.
- Speller, Clarence William  
22 Wyandotte Avenue, Highland Falls, N. Y.  
(25)

## REGISTER OF STUDENTS, SESSION OF 1928-1929

## GRADUATE UNIVERSITY CLASS

- Kennedy, Margaret  
(1) Cambridge, N. Y.

## SENIOR UNIVERSITY CLASS

- Bevacqua, Alfred  
375 Baldwin Avenue, Jersey City, N. J.
- Brooks, Vernon H.  
25 Maple Place, Port Chester, N. Y.
- Dick, Lester C.  
98 Division Street, Keyport, N. J.
- Givens, Horace T. F.  
6 Cottage Place, Freehold, N. J.
- Lauri, Victor  
210 Degraw Street, Brooklyn, N. Y.
- Lippe, A. Alfred  
540 Jerome Street, Brooklyn, N. Y.
- Schultz, Joseph  
990 Aldus Street, New York, N. Y.
- Seng, John W.  
107 Carroll Place, New Brunswick, N. J.
- Simone, Catherine  
Croton-on-Hudson, N. Y.
- Stauber, Robert A.  
R. D. 15 Groton, New York, N. Y.

- Steinberg, Abraham  
620 Riverdale Avenue, Brooklyn, N. Y.
- Tong, Young  
(12) 1404 Liesetoavia Street, Honolulu, P. H.

## JUNIOR UNIVERSITY CLASS

- Aaronson, Irving Bernard  
100 Humboldt Street, Brooklyn, N. Y.
- Alderman, George J.  
214 New Main Street, Yonkers, N. Y.
- Amatucci, Laura  
1860-84th Street, Brooklyn, N. Y.
- Appelbaum, Joseph  
147 Schenectady Avenue, Brooklyn, N. Y.
- Bauso, Felix  
8315 Woodhaven Boulevard, Queens, L. I.,  
N. Y.
- Beck, Louis  
Cresskill, N. J.
- Berry, Isadore  
76 Morgan Street, Springfield, Mass.
- Biberfeld, A. Louis  
150-17th Street, West New York, N. J.
- Brown, Gustave H.  
884 Riverside Drive, New York, N. Y.

- Bulda, Frank E.  
262 Fifth Avenue, Astoria, L. I.
- Caniparoli, Olga  
2529 Cambreleng Avenue, New York, N. Y.
- Carbonaro, John  
2 McMaster Street, Auburn, N. Y.
- Carnot, E. J.  
345 West 86th Street, New York, N. Y.
- Cherr, George  
1703 Washington Avenue, New York, N. Y.
- Cohen, Irving S.  
1121 Tinton Avenue, New York, N. Y. C.
- Costarella, Renato  
5822-15 Avenue, Brooklyn, N. Y.
- Criscuolo, Andrew  
792 Grand Avenue, New Haven, Conn.
- Davenport, Renald  
Sweet Valley, Pa.
- Dayharsh, Carroll  
105 Kensington Place, Syracuse, N. Y.
- Del Vecchio, Henry W.  
1366-73rd Street, Brooklyn, N. Y.
- Edelstein, Victor H.  
62 East 94th Street, New York City
- Edgars, Norman K.  
85 Hillside Avenue, Tenafly, N. J.
- Ellena, Aldo J.  
180 South Bergenline Avenue, Union City, N. J.
- Erdtrachter, Jules P.  
229 Fifth Street, New York City
- Fabrikant, Lawrence  
1986 Clinton Avenue, New York, N. Y.
- Falk, Herbert B.  
709 East 24th Street, Paterson, N. J.
- Fishbein, Isadore L.  
70 Carroll Street, Paterson, N. J.
- Fisher, Jennie  
314 Bay 10th Street, Brooklyn, N. Y.
- Freedman, Ray Morris  
7 West Glen Street, Glen Cove, N. Y.
- Fries, Harry  
1049 East 13th Street, Brooklyn, N. Y.
- Ganeless, Percy  
105 North Main Street, Liberty, N. Y.
- Gatov, Louis  
1749 Grand Concourse, New York, N. Y.
- Gerken, Fred  
133-08 Rockaway Boulevard, South Ozone Park, N. Y.
- Ginn, Barnett  
126 East 7th Street, New York, N. Y.
- Glantz, Milton  
355 Second Avenue, New York, N. Y.
- Glassman, Louis H.  
101 Straight Street, Paterson, N. J.
- Glickfield, Peter J.  
14 Cecil Avenue, Glen Cove, N. Y.
- Gorenberg, David  
690 East 158th Street, New York, N. Y.
- Grasser, George J.  
22 Florida Avenue, Arrochar, S. I.
- Greenfield, Joseph  
222 East 124th Street, New York, N. Y.
- Groves, Reginald  
415 Spooner Avenue, Plainfield, N. J.
- Gulker, Jacob H.  
174 Clinton Street, New York, N. Y.
- Guss, I. E.  
1425 Eastern Parkway, Brooklyn, N. Y.
- Hand, Quentin R.  
2533 Seventh Avenue, New York, N. Y.
- Harrison, Ben  
197 Floyd Street, Brooklyn, N. Y.
- Hoyte, Lewis P.  
169 St. Nicholas Avenue, New York, N. Y.
- Ingegno, Henry P.  
413-2nd Street, Brooklyn, N. Y.
- Iozzia, Theresa C.  
127 Beech Street, Paterson, N. J.
- Ironson, Hyman  
1265 Gerard Avenue, New York, N. Y.
- Isgar, William  
95 Barrett Street, Brooklyn, N. Y.
- Jae, H. Y.  
522 West 147th Street, New York N. Y.
- James, Edith G.  
588 Lenox Avenue, New York, N. Y.
- Kadish, Frank B.  
21 South Dean Street, Englewood, N. J.
- Kaplan, Aaron  
93 Granite Street, Brooklyn, N. Y.
- Kaplan, Herbert B.  
185 Bergen Avenue, Jersey City, N. J.
- Kerner, Emanuel Matthew  
1968-68th Street, Brooklyn, N. Y.
- Kolk, Martin I.  
1550-50th Street, Brooklyn, N. Y.
- La Placa, Francis A.  
316 Monroe Street, Hoboken, N. J.
- Levy, Alexander  
556 Ashford Street, Brooklyn, N. Y.
- Levy, Julian  
436 Eastern Parkway, Brooklyn, N. Y.
- Lipkowitz, Irving M.  
690 Monroe Street, Brooklyn, N. Y.
- Lo Russo, Joseph F.  
1883 West 13th Street, Brooklyn, N. Y.
- Lubin, Abraham A.  
1314 Mulberry Street, Scranton, Pa.
- Malament, Louis  
316 South Fourth Street, Brooklyn, N. Y.
- Mallon, Milton J.  
372 Snediker Avenue, Brooklyn, N. Y.
- Margolies, Raymond N.  
119 Lackawanna Avenue, Olyphant, Pa.
- Megibow, Louis  
314-28th Street, Woodcliff, N. J.

- Miceli, Anthony Victor  
273 Ninth Avenue, New York City
- Molbegat, Abner  
114-59 Farmers Boulevard, St. Albans, N. Y.
- Oaklander, Isidore  
1315 Bronx River Avenue, Bronx, New York,  
N. Y.
- Ortega, Louis B.  
557 West 148 Street, New York City
- Patrizio, Silvio  
108-21 Union Hall Street, Jamaica, N. Y.
- Pekarsky, Benjamin  
1965 Bryant Avenue, New York, N. Y.
- Pillone, Maria  
713 Lincoln Avenue, Ridgefield Park, N. J.
- Pitchinick, Bernard  
1737 Pitkin Avenue, Brooklyn, N. Y.
- Race, Clarence  
45 Third Avenue, Bayshore, L. I.
- Reale, Victor A.  
1569-78th Street, Brooklyn, N. Y.
- Reichman, Frances  
648 Faile Street, New York, N. Y.
- Rosenberg, Abraham  
4 Hinman Street, Middle Village, N. Y.
- Rosenberg, Isidor  
197 Tenth Street, Long Island City, N. Y.
- Rossi, Filomena F.  
30 Macdougall Street, New York City
- Rubenstein, Louis J.  
85 Powell Street, Brooklyn, N. Y.
- Schlagel, Charles Jr.  
18 Oak Street, Beacon, N. Y.
- Schmid, Frederick W. Jr.  
Hillsdale Avenue, P. O. Box 286, Hillsdale,  
N. J.
- Schmurok, Leon  
19 Sterling Place, Brooklyn, N. Y.
- Schopmann, William Henry  
103 Grace Street, Jersey City, N. J.
- Schubert, Georgia A.  
21 East High Street, Bound Brook, N. J.
- Schuchman, David  
210 Foster Avenue, Brooklyn, N. Y.
- Seitzman, Max  
193 Howe Avenue, Passaic, N. J.
- Skasko, Stephen  
10 Fairfield Avenue, Danbury, Conn.
- Soracco, Frank  
15 South Main Street, Liberty, N. Y.
- Sorensen, Harry  
517 East 26th Street, Brooklyn, N. Y.
- Sparacio, C. J.  
30 Harrison Avenue, Monson, Mass.
- Spitz, Morris S.  
196 W. Broadway, Paterson, N. J.
- Sporn, Arthur  
431 East 83rd Street, New York City
- Steiner, David  
55 East 88th Street, New York City
- Stopen, Theodore  
528 East 142 Street, New York City
- Sugarman, Benjamin  
1 Grant Place, Weehawken, N. J.
- Taylor, Esser O.  
433 So. Seventh Avenue, Mount Vernon,  
N. Y.
- Teicher, Milton  
527 West 135th Street, New York City
- Teichholz, Bernard  
309 Madison Street, Passaic, N. J.
- Wagman, Meyer  
651 East 220 Street, New York City
- Wagner, Harry F.  
8967-214th Street, Queens Village, N. Y.
- Waltz, Hugo Joseph  
264 Morris Street, Union City, N. J.
- Wang, Sidney R.  
683 Pennsylvania Avenue, Brooklyn, N. Y.
- Weber, Jacob  
1059 Glenmore Avenue, Brooklyn, N. Y.
- Wilentz, Alexander  
28 W. Palisade Avenue, Englewood, N. J.
- YaDeau, George J.  
23 West Ruby Avenue, Palisades Park, N. J.
- Yukelson, Arthur W.  
1209 Westchester Avenue, Bronx, N. Y.
- Zunz, Edward  
542-28th Street, Union City, N. J.
- Zweig, Arthur  
9 Pinehurst Avenue, New York City  
(111)

## SOPHOMORE UNIVERSITY CLASS

- Benjamin, Irving  
35 Brookside Place, New Rochelle, N. Y.
- Berest, Joseph  
2335 Walton Avenue, New York, N. Y.
- Betzer, Clifford William  
194-54 114th Road, St. Albans, N. Y.
- Canepa, John Joseph  
111 Anderson Avenue, Scarsdale, N. Y.
- Carlat, Bernard  
1914 East 18th Street, Brooklyn, N. Y.
- D'Avella, Ben Johnson  
167 Parker Street, Newark, N. J.
- De Domenico, Ida  
287 Bleecker Street, New York City
- Eisenberg, Julius  
327 Steinway Avenue, Astoria, N. Y.
- Fisher, Sidney Alexander  
1016 Simpson Street, New York, N. Y.
- Gaer, Bertram  
641 Lafayette Avenue, Brooklyn, N. Y.
- Henkin, Samuel  
919 Forest Avenue, New York City

- Hubbard, Earl Edmund  
63 Second Avenue, Bayshore, L. I.
- Jacobs, Julius  
1281 Eastern Parkway, Brooklyn, N. Y.
- Kucker, George  
1114 Magnolia Avenue, Elizabeth, N. J.
- Lichtenberg, Raymond  
226 Adams Street, Hoboken, N. J.
- Massarsky, Solomon  
16 Second Street, Weehawken, N. J.
- Moskowitz, Herman  
323 Packman Avenue, Fleetwood, N. Y.
- Muller, Alfred Carl  
147-16 Seventeenth Road, Whitestone, N. Y.
- Nochimow, Eliezer  
489 Willoughby Avenue, Brooklyn, N. Y.
- Noll, William Frederick  
2502 So. Fairfield Avenue, Fort Wayne, Ind.
- Pagano, Alphonse F.  
213 Van Brunt Street, Brooklyn, N. Y.
- Peskin, Benjamin  
179 East 101st Street, New York City
- Sacharow, Samuel S.  
7111-20th Avenue, Brooklyn, N. Y.
- Sadinsky, Hyman B.  
60 Maple Street, Norwich, Conn.
- Seldeen, Israel Barnett  
204 Broadway, Amityville, N. Y.
- Seligman, Morris William  
317 East 27th Street, New York, N. Y.
- Simcovigz, Robert  
848 Belmont Avenue, Springfield, Mass.
- Stephanou, Eli  
33 Thames Street, Norwich, Conn.
- Stevens, Eli  
450 Bay Ridge Avenue, Brooklyn, N. Y.
- (29)
- FRESHMEN UNIVERSITY CLASS
- Abramson, Samuel  
362 East 169th Street, c/o B. Goldstein  
New York, N. Y.
- Burch, Collingwood Vincent  
St. Georges, Bermuda, P. O. B. 17
- Cassano, Caesar  
2147 Washington Avenue, New York, N. Y.
- Chesler, Morris  
4338 Gunther Avenue, New York, N. Y.
- Cohen, Gertrude  
22 First Street, Weehawken, N. J.
- Fauci, Stephen Antonio  
1669-79th Street, Brooklyn, N. Y.
- Fehder, Paul  
5918 18th Avenue, Brooklyn, N. Y.
- Feinberg, Solomon  
2820 W 36th Street, Coney Island, Brooklyn,  
N. Y.
- Gain, Ethel Annie Louise  
Jeffersonville, N. Y.
- Goldberg, Meyer  
1091 Longfellow Avenue, New York City
- Hoffman, Bernard William  
9127 St. Charles Court, Woodhaven, N. Y.
- Levsky, William Samuel  
2818 Heath Avenue, New York, N. Y.
- Lipschitz, Leo  
7007-19th Avenue, Brooklyn, N. Y.
- Livingston, Elias  
801 West End Avenue, New York, N. Y.
- Mar, George Kaye  
296 Ellen Street, Winnipeg, Man., Canada
- Marcus, Irving  
791 Troy Avenue, Brooklyn, N. Y.
- Mehlsak, Harry Nathan  
1985 Creston Avenue, New York, N. Y.
- Merring, Harry Louis  
3568 North 163rd Street, Flushing, L. I.
- Miller, Benjamin  
91 Center Street, Ellenville, N. Y.
- Orfuss, Abraham Jack  
2920 West 27th Street, Brooklyn, N. Y.
- Schwartz, Israel C.  
3 Manitou Avenue, Poughkeepsie, N. Y.
- Shapiro, Mandel  
563 West 185th Street, New York, N. Y.
- Smith, Henry  
2353 Foster Avenue, Brooklyn, N. Y.
- Smith, Robert  
143 Albany Avenue, Brooklyn, N. Y.
- Vigdarowitz, Martin  
65 East 99th Street, New York, N. Y.
- Yip, Kew Dock  
51 Pender Street E., Vancouver, Canada
- (26)
- SECOND YEAR COLLEGE CLASS
- Abrams, Michael Irving  
108-21st Street, West New York, N. J.
- Ackerman, Ruth  
749 Kelly Street, New York, N. Y.
- Allegra, Frank  
65 Webster Avenue, Long Island City, N. Y.
- Alperstein, Hyman Meyer  
216 East 10th Street, New York, N. Y.
- Anderson, Arthur Gustave  
4 Travers Avenue, Mamaroneck, N. Y.
- Asbell, Joseph  
1420 Nostrand Avenue, Brooklyn, N. Y.
- Bacchiani, Torquato  
211 East 57th Street, New York, N. Y.
- Bambara, Aurelius John  
1271-42nd Street, Brooklyn, N. Y.
- Bardfeld, Gustave  
9720 Jamaica Avenue, Woodhaven, N. Y.
- Bartha, John Anthony, Jr.  
165 Hamilton Street, New Brunswick, N. J.
- Bauer, Max  
400 Eighth Street, West New York, N. J.

- Bauer, Paul Edgar  
249 Post Avenue, Westbury, L. I.
- Berkowitz, Bernard  
109 Eldridge Street, New York, N. Y.
- Beyer, Isadore  
Spring Glen, N. Y.
- Bittar, Albert  
5101 Sixth Avenue, Brooklyn, N. Y.
- Blatt, Jacob  
3540 Rochambeau Avenue, New York, N. Y.
- Blumberg, Lester  
180 Danforth Avenue, Jersey City, N. J.
- Boxer, Meyer  
131 Rockaway Parkway, Brooklyn, N. Y.
- Bronzo, Ralph  
2070 West Ninth Street, Brooklyn, N. Y.
- Bussle, Harry  
1718 Washington Avenue, New York, N. Y.
- Calabrese, Savino Daniel  
826 Second Avenue, New York, N. Y.
- Capobianco, Dominick Thomas  
506 Brook Avenue, New York, N. Y.
- Carroll, Harry  
468 Wyona Street, Brooklyn, N. Y.
- Cassara, Anthony V.  
1121-40th Street, Brooklyn, N. Y.
- Charnes, Randolph  
495 East 174th Street, New York, N. Y.
- Chernoff, Max  
607 Hopkinson Avenue, Brooklyn, N. Y.
- Cimino, John A.  
485 Henry Street, Brooklyn, N. Y.
- Cipnic, Herman  
111-11 Liberty Avenue, Richmond Hill, N. Y.
- Cohen, Bernard Martin  
2001 Douglass Street, Brooklyn, N. Y.
- Cohen, Harry  
561 West 163rd Street, New York, N. Y.
- Cohen, Henry  
325 Wallabout Street, Brooklyn, N. Y.
- Cohen, Isaac  
591 East 141st Street, New York, N. Y.
- Cohen, Meyer  
537 West 141st Street, New York, N. Y.
- Cohen, Sidney  
450 East 184th Street, New York, N. Y.
- Cohen, William  
726 Rockaway Avenue, Brooklyn, N. Y.
- Coppola, Angelo  
34-21 91st Street, Jackson Heights, N. Y.
- Costabile, Hugo  
872 East 163rd Street, New York, N. Y.
- Crafa, Mary P.  
9412 Van Wyck Avenue, Richmond Hill, N. Y.
- Davis, Benjamin Richard  
1771-57th Street, Brooklyn, N. Y.
- Decter, Jacob  
11 McDonough Street, Brooklyn, N. Y.
- Denker, Benjamin  
496 East 174th Street, New York, N. Y.
- Diamondstein, Joseph  
1506 Walton Avenue, New York, N. Y.
- Dicker, Morris  
228 Sixth Street, New York, N. Y.
- Dier, Philip  
2797 East 7th Street, Brighton Beach, N. Y.
- Dinin, Jack  
139 Division Street, New York, N. Y.
- Dogan, Max  
1594 East 10th Street, Brooklyn, N. Y.
- Dwoskin, Barney William  
2930 West 36th Street, Coney Island, N. Y.
- Ellinson, Barnett  
868 East 172nd Street, New York, N. Y.
- Epstein, Samuel Irving  
315 East 102nd Street, New York, N. Y.
- Failla, Silvio Joseph  
740 Main Street, North Bergen, N. J.
- Falk, Benjamin  
312 Madison Street, New York, N. Y.
- Fazio, Ignatius  
3629 White Plains Avenue, New York, N. Y.
- Feldman, Morris  
120 Bristol Street, Brooklyn, N. Y.
- Fermaglich, Louis Joseph  
67 Sheriff Street, New York, N. Y.
- Fialkow, Benjamin  
547 Howard Avenue, Brooklyn, N. Y.
- Firemark, Samuel  
107-57 Union Hall Street, Jamaica, N. Y.
- Flaherty, Sister Mary Oswald  
Marywood College, Scranton, Pa.
- Flaumenbaum, Irving  
1454 East 14th Street, Brooklyn, N. Y.
- Fleissig, Arthur  
378 East 10th Street, New York, N. Y.
- Flexer, Isidore  
839 Howard Avenue, New Haven, Conn.
- Form, Milton  
1828 Myrtle Avenue, Brooklyn, N. Y.
- Frankel, Isidore  
156 Second Avenue, New York, N. Y.
- Frankfort, Morris  
1980 East 26th Street, Brooklyn, N. Y.
- Fried, Emanuel  
1584 East 172nd Street, New York, N. Y.
- Friedberg, Irving  
522 Christopher Avenue, Brooklyn, N. Y.
- Gellar, Henry  
1003 Clarkson Avenue, Brooklyn, N. Y.
- Getzlek, George  
412 Lansing Street, Utica, N. Y.
- Gitlin, Benjamin  
1830 Anthony Avenue, New York City
- Glick, Percy  
2716 Hubbard Street, Brooklyn, N. Y.

- Gluck, Morton  
1560 Amsterdam Avenue, New York, N. Y.
- Gold, Morris  
1096 West Farms Road, c/o Schlossberg  
New York, N. Y.
- Goldberg, Harry  
311 West 14th Street, New York, N. Y.
- Goldfarb, Samuel  
744 Coster Street, New York, N. Y.
- Govendy, Anna Belle  
1233 South State Street, Syracuse, N. Y.
- Gralewski, Walter  
757-41st Street, Brooklyn, N. Y.
- Greenstein, Edward  
361 Van Sicklen Avenue, Brooklyn, N. Y.
- Gressey, Henry  
31-14 36th Street, Astoria, L. I.
- Guagliardo, Vincent Francis  
28 Harrison Avenue, Monson, Mass.
- Haimowitz, Benjamin  
23 Tapscott Street, Brooklyn, N. Y.
- Hamburg, David  
1019 Freeman Street, New York, N. Y.
- Hickman, Louis Harry  
145 W. 98th Street, New York, N. Y.
- Hirschmann, Jonas  
278 Magnolia Avenue, Jersey City, N. J.
- Holzman, Jack  
59-14 39th Avenue, Woodside, L. I.
- Huber, Henry  
213 Euclid Avenue, Ridgefield Park, N. J.
- Huger, Charles  
1421 Crotona Avenue, New York, N. Y.
- Hurwitz, Myer  
1402 S. McBride Street, Syracuse, N. Y.
- Israel Samuel  
470 Snediker Avenue, Brooklyn N. Y.
- Jackson, Joseph  
948 Tiffany Street, New York, N. Y.
- Jurow, Louis  
Mongaup Valley, N. Y.
- Kaufman, George Sam  
569 Saratoga Avenue, Brooklyn, N. Y.
- Kessler, Nathan  
227 Ashburton Avenue, Yonkers, N. Y.
- Klein, Joseph  
1532 West 10th Street, Brooklyn, N. Y.
- Klorman, Joseph  
152 East 96th Street, Brooklyn, N. Y.
- Kobelivker, Joseph  
734 Saratoga Avenue, Brooklyn, N. Y.
- Koretsky, Leon  
699 Willoughby Avenue, Brooklyn, N. Y.
- Koslowsky, David  
1967-71st Street, Brooklyn, N. Y.
- Kosowsky, Milton Stanley  
52 Summer Street, New London, Conn.
- Kosoff, Charles  
37-64 Warren Street, Elmhurst, L. I.
- Kressel, Marcus  
171 Essex Street, New York, N. Y.
- Kyzer, Anton Louis  
30-70 45th Street, Astoria, N. Y.
- Lacovara, George  
754 East 215th Street, New York City
- Lauria, Anthony  
460 Fairmount Avenue, Jersey City, N. J.
- Lowentman, Julius  
115 East 114th Street, New York, N. Y.
- Lerman, Nathaniel B. Colchester, Conn.
- Lerner, Isadore  
50 East 3rd Street, New York, N. Y.
- Levine, Theodore  
371 Crown Street, Brooklyn, N. Y.
- Liberman, Joseph Rudolph  
1061 Intervale Avenue, New York, N. Y.
- Liebowitz, Harry C.  
1154 College Avenue, New York, N. Y.
- Lindheim, Michael  
4 Blake Avenue, Brooklyn, N. Y.
- Lissman, Harold  
230 East 173rd Street, New York, N. Y.
- Loscalzo, Joseph  
125-46th Street, Corona, N. Y.
- McDavid, Sydney Sigeman Alonzo  
801 Freeman Street, New York, N. Y.
- Maggio, John  
107 Ridgewood Avenue, Brooklyn, N. Y.
- Maisel, Milton  
300 Riverside Drive, New York, N. Y.
- Mandel, Charles  
341 Wythe Avenue, Brooklyn, N. Y.
- Mandelblit, Morris  
990 Greene Avenue, Brooklyn, N. Y.
- Manfre, Stephen  
204 Baltic Street, Brooklyn, N. Y.
- Mariani, Faustina  
3350 White Plains Avenue, New York, N. Y.
- Marion, Bernard  
604 West 191st Street, New York, N. Y.
- Marotta, Raphael A.  
2301-35th Avenue, Astoria, L. I.
- Marra, Joseph Richard  
11 Ohio Avenue, Port Washington, N. Y.
- Marshall, Lillian  
412 Myrtle Avenue, Coytesville, N. J.
- Matragrano, Anthony John  
Bedford Hills, N. Y.
- Matthias, Eulalie Ravina  
308 West 129th Street, New York, N. Y.
- Mazie, Jack  
224 Avenue A, New York, N. Y.
- Mazur, Samuel  
33 Montgomery Street, New York, N. Y.
- Meiselman, Harold Engel  
9 Northern Avenue, New York, N. Y.
- Miller, Bernard  
1450 Bryant Avenue, New York, N. Y.

- Millner, Samuel  
73 Grafton Street, Brooklyn, N. Y.
- Mininberg, Harry  
909 Kelly Street, New York, N. Y.
- Montesano, Benjamin  
9 Green Street, Paterson, N. J.
- Mordente, Constance Florence  
423 East 122nd Street, New York, N. Y.
- Mordente, Josephine  
423 East 122nd Street, New York, N. Y.
- Moroch, David  
2116-66th Street, Brooklyn, N. Y.
- Murdock, Peter C.  
25 Amsterdam Place, Mount Vernon, N. Y.
- Mussawir, Alfred George  
436-45th Street, Brooklyn, N. Y.
- Naftal, Benjamin Harold  
329 East 94th Street, New York, N. Y.
- Napoliello, Joseph Francis  
21 Grace Street, Jersey City, N. J.
- Nemiroff, Max Milton  
1220-45th Street, Brooklyn, N. Y.
- Nestampower, Morris  
485 East 95th Street, Brooklyn, N. Y.
- Nieparent, Morris  
63 East 118th Street, New York, N. Y.
- Orkand, Sidney  
1812 Clay Avenue, New York, N. Y.
- Paley, Jacob  
102-44 Jamaica Avenue, Richmond Hill,  
L. I.
- Papalinsky, Morris  
1001 Lincoln Place, Brooklyn, N. Y.
- Pekarsky, Morris  
219 East 10th Street, New York, N. Y.
- Peltz, Philip William  
252 West 91st Street, New York, N. Y.
- Pinck, Nathan  
84 Henry Street, Passaic, N. J.
- Platt, Max  
953 East 174th Street, New York, N. Y.
- Posner, Albert Hyman  
923 Fox Street, New York, N. Y.
- Pospisil, Rudolph Joseph  
30-70 32nd Street, Astoria, N. Y.
- Rabinowitz, Kalman  
239 Henry Street, New York, N. Y.
- Ramo, Louis  
34 St. Marks Avenue, Rockville Centre, L. I.
- Reich, Bernard  
163 Smith Street, Brooklyn, N. Y.
- Reife, William  
1023 Hopkinson Avenue, Brooklyn, N. Y.
- Reisch, George F.  
60 East Palisade Boulevard, Palisade Park,  
N. J.
- Rende, Alfonso Louis  
723 East 229th Street, New York, N. Y.
- Robas, Mildred Marie  
90-54 178th Street, Jamaica, N. Y.
- Robinson, Abraham  
237 Hart Street, Brooklyn, N. Y.
- Ronick, Charles  
1244 Wheeler Avenue, New York, N. Y.
- Ronsheim, Julian  
808 West End Avenue, New York, N. Y.
- Rosenberg, David  
128 Goerck Street, New York, N. Y.
- Rosenberg, Hyman  
387 Williams Avenue, Brooklyn, N. Y.
- Rosenberg, Irving  
87 Siegel Street, Brooklyn, N. Y.
- Rosenberg, Isaac  
826 East 167th Street, New York, N. Y.
- Rosenberg, Samuel  
1175 East 9th Street, Brooklyn, N. Y.
- Rosenman, Chaim  
610 Concord Avenue, New York, N. Y.
- Rosenthal, William  
120 West 112th Street, New York, N. Y.
- Rosmosky, Abraham  
27 East 110th Street, New York, N. Y.
- Rothbaum, Milton  
2800 Bronx Park East, New York, N. Y.
- Rothberg, Philip  
1566 St. Marks Avenue, Brooklyn, N. Y.
- Rothman, Abraham Herbert  
1420 Stebbins Avenue, New York, N. Y.
- Rovner, Louis  
310 South Third Street, Brooklyn, N. Y.
- Rubenstein, Arthur  
505 Essex Street, Brooklyn, N. Y.
- Rubin, Benjamin  
493 Second Avenue, New York, N. Y.
- Rubin, Harold  
870 Riverside Drive, New York, N. Y.
- Saperstein, Milton  
1519 Plimpton Avenue, New York, N. Y.
- Schechter, Hyman  
418 East 5th Street, New York, N. Y.
- Schechter, Morris  
348 East 9th Street, New York, N. Y.
- Scheer, John Jonas  
1997 Lexington Avenue, New York, N. Y.
- Scher, Wilfred  
1157 Manor Avenue, New York, N. Y.
- Scherer, Paul  
126 East Second Street, New York, N. Y.
- Schneck, Max R.  
984 Sheridan Avenue, New York, N. Y.
- Scholefield, Charles Wesley  
23 Ralph Street, Beacon, N. Y.
- Schulman, Solomon  
814 East 166th Street, New York, N. Y.
- Schur, Sidney  
2012 East 13th Street, Brooklyn, N. Y.



- Schwartz, Hyman  
819 East 168th Street, New York, N. Y.
- Schwartz, Joseph George  
250 East 30 Street, New York, N. Y.
- Scouras, Constantine  
29 West 65th Street, New York, N. Y.
- Shapiro, Daniel  
1518 East 172nd Street, New York, N. Y.
- Sherman, Harold  
1448 Fifth Avenue, New York City
- Shub, Abraham  
632 Vermont Street, Brooklyn, N. Y.
- Shucard, Jacob  
920 Stone Avenue, Brooklyn, N. Y.
- Siderman, Morris  
2784 East 7th Street, Brooklyn, N. Y.
- Siegel, Joseph  
Ferndale, N. Y.
- Siegel, Solomon  
512 East Taylor Street, Syracuse, N. Y.
- Silverman, Max  
525 Miller Avenue, Brooklyn, N. Y.
- Silverstein, George J.  
12 Pinehurst Avenue, New York, N. Y.
- Singer, Max  
296 Delancey Street, New York, N. Y.
- Slobin, Jacob  
807-28th Street, Union City, N. J.
- Slutzkin, Frederick  
751 East 155th Street, New York City
- Smith, Van Roy  
130 West 142nd Street, Apt. 10, New York, N. Y.
- Spanier, Irving  
117 Clymer Street, Brooklyn, N. Y.
- Spetalnick, Max J.  
1245 Ward Avenue, New York, N. Y.
- Spirko, Stephen M.  
5 Wilson Street, Jessup, Pa.
- Steinberg, Isidore  
1180-47th Street, Brooklyn, N. Y.
- Steiner, Elias  
880 East 178th Street, New York, N. Y.
- Stitzel, Louis  
308 East 6th Street, New York, N. Y.
- Stolper, Morris  
19 East 108th Street, New York, N. Y.
- Strauss, Morris  
104-06 East 2nd Street, New York, N. Y.
- Thompson, Joseph Henry  
100 Hester Street, New York, N. Y.
- Tishler, George  
1593 Prospect Place, Brooklyn, N. Y.
- Tobias, Meyer  
537 Palisade Avenue, Jersey City, N. J.
- Troub, Louis  
1728 Sterling Place, Brooklyn, N. Y.
- Tunis, Philip  
138 Norfolk Street, New York, N. Y.
- Twersky, Mary  
3406-31 Avenue, L. I. City, N. Y.
- Valerio, Leo Joseph  
345 West 21st Street, New York, N. Y.
- Vasiliades, Angelo  
257 Second Street, Lakewood, N. J.
- Webman, Larry  
402 South 2nd Street, Brooklyn, N. Y.
- Weidenbaum, Ralph  
248 East Houston Street, New York, N. Y.
- Weinberg, Victor  
219 Henry Street, New York, N. Y.
- Weinstein, Louis  
1808-75th Street, Brooklyn, N. Y.
- Weintraub, Hyman  
57 Suffolk Street, New York, N. Y.
- Weiss, Louis  
398 Ralph Avenue, Brooklyn, N. Y.
- Wexlin, Hyman  
1219 Rosedale Avenue, New York, N. Y.
- Winokur, Aaron  
2223 Surf Avenue, Brooklyn, N. Y.
- Wisztreich, Edward  
315 East 79th Street, New York, N. Y.
- Wollenberg, Hamilton  
136 East 96th Street, New York, N. Y.
- Zanca, Anthony  
1320 Brook Avenue, New York, N. Y.
- Zeichner, Lewis Abraham  
278 East 7th Street, New York, N. Y.
- Zunin, Louis  
980 Sutter Avenue, Brooklyn, N. Y.
- (230)

## FIRST YEAR COLLEGE COURSE ✓

- Abramson, Jacob  
72 Brookfield Street, White Plains, N. Y.
- Achiron, Harold  
54 Lewis Avenue, Brooklyn, N. Y.
- Adelman, Rubin  
761 Elton Avenue, New York, N. Y.
- Aloisi, Frank  
1226 Ward Avenue, New York, N. Y.
- Anderson, Ometta C.  
281 Edgecomb Avenue, New York, N. Y.
- Aponofsky, Anna  
Broadway & Little Neck Road, Little Neck, L. I.
- Armband, Max  
327 East 5th Street, New York, N. Y.
- Arnowitz, Barnett  
105 East 123rd Street, New York, N. Y.
- Avstreich, Albert  
203 Academy Street, Jersey City, N. J.
- Barile, Emerico Alfred  
235 West 67th Street, New York, N. Y.
- Bateman, Edward Henry  
36 North Street, Pulaski, N. Y.

- Bauer, Charles W.  
249 Post Avenue, Westbury, L. I.
- Beghin, Frank A.  
336 East 107th Street, New York, N. Y.
- Belfer, Samuel  
1090 Washington Avenue, New York, N. Y.
- Belinsky, Benjamin  
62 East 119th Street, New York, N. Y.
- Berkowitz, Aaron J.  
106 West 61st Street, New York, N. Y.
- Berkowitz, Carl  
15 East 107th Street, New York, N. Y.
- Berlin, Joseph  
106 Quincy Street, Passaic, N. J.
- Berliner, Meyer  
Great Neck, L. I.
- Bernstein, Sydney  
2037 Hughes Avenue, New York, N. Y.
- Birdslow, Kent Bishop  
Lacona, N. Y.
- Blank, George  
1765 Walton Avenue, c/o Tepper, New York, N. Y.
- Blois, Bernard Edward  
34 King Street, New York, N. Y.
- Bloom, Albert Sidney  
58 Fairmount Street, Norwich, Conn.
- Bloom, Isidore  
390 East 4th Street, New York, N. Y.
- Boghosian, Paul Der  
488 New York Avenue, Union City, N. J.
- Bookstaber, Leo  
32-42 33rd Street, Long Island City, N. Y.
- Boxer, Louis  
427 East 170th Street, New York, N. Y.
- Braswell, James Le Roy  
265 Flatbush Avenue, Brooklyn, N. Y.
- Breimer, Julius Albert  
429 East 168 Street, New York, N. Y.
- Brescia, Matthew R.  
812 Pembroke Street, Bridgeport, Conn.
- Brown, Charles Lloyd  
2054 Fletcher Avenue, Fort Lee, N. J.
- Buono, Joseph  
30 Cornelia Street, New York, N. Y.
- Calabrese, Theodore V.  
3719 Foster Avenue, Brooklyn, N. Y.
- Calleo, Nicholas Benjamin  
22 Van Wort Place, Jersey City, N. J.
- Capillo, Joseph B.  
8717-94th Street, Woodhaven, N. Y.
- Caprio, Ralph  
140 Parker Street, Newark, N. J.
- Carpinelli, Michael J.  
281 Linden Avenue, Jersey City, N. J.
- Caruso, Mario  
491 Warren Street, Brooklyn, N. Y.
- Cassera, Grace Leona  
1531-68th Street, Brooklyn, N. Y.
- Catozzio, Peter  
729 Adam Street, West New York, N. J.
- Cecere, Natale  
431-28th Street, Woodcliff, N. J.
- Charlip, Abraham M.  
440 Williams Avenue, Brooklyn, N. Y.
- Chefetz, Hyman H.  
540 East 5th Street, New York, N. Y.
- Chernow, Jack  
1162-52nd Street, Brooklyn, N. Y.
- Chomsky, Isidore  
1443-38th Street, Brooklyn, N. Y.
- Christman, Frederick W.  
34 Oak Street, Valley Stream, N. Y.
- Cohen, Abe  
2333 Webster Avenue, New York, N. Y.
- Cohen, Charles  
111 Tudor Place, New York, N. Y.
- Cohen, Frank  
2216 Douglass Street, Brooklyn, N. Y.
- Cohen, Herman  
1532-45th Street, Brooklyn, N. Y.
- Cohen, Joseph  
1490 Crotana Park East, New York, N. Y.
- Cohen, Max  
61 East 99th Street, New York, N. Y.
- Cuffee, Arthur Smallwood  
146 West 143rd Street, New York, N. Y.
- DeMucci, Frank Robert  
40-36 97th Street, Corona, N. Y.
- De Rosa, Michael Angelo  
860 East 232nd Street, New York, N. Y.
- Diamond, Morris  
261 West 21st Street, New York, N. Y., Apt. 10
- Drogin, Jacob  
467 Avenue A, Bayonne, N. J.
- Dubitsky, Jules  
23 West 52nd Street, Bayonne, N. J.
- Dworkowitz, Jesse  
420 Avenue S, Brooklyn, N. Y.
- Edelstein, Isadore  
305 East Mine Street, Hazleton, Pa.
- Eichler, Julian  
31-11 28th Street, Jackson Heights, N. Y.
- Eichner, Jerome  
51 Farrington Street, Flushing, N. Y.
- Eicken, Nathan  
180 Mercer Street, Jersey City, N. J.
- Eilberg, Abraham  
700 Saratoga Avenue, c/o Tiegel, Brooklyn, N. Y.
- Eisenberg, Robert  
1424 Parker Street, New York, N. Y.
- Emrich, Ralph James  
115 Maine Avenue, West New Brighton, S. I.
- Epstein, Marvin M.  
110 Walnut Street, Springfield, Mass.
- Epstein, Max H.  
115 Grand Street, Brooklyn, N. Y.
- Epstein, Paul  
72 Jackson Avenue, Jersey City, N. J.

- Evans, Max  
364 Monroe Street, Brooklyn, N. Y.
- Feigelson, Irving  
2838 West 19th Street, Coney Island, N. Y.
- Feinberg, Irving B.  
469 Cleveland Street, Brooklyn, N. Y.
- Ferrara, Vincent  
208 Fifth Street, Jersey City, N. J.
- Fialk, Robert  
198 Hopkins Avenue, Jersey City, N. J.
- Fichiera, Michael  
132 East 109th Street, New York, N. Y.
- Ficks, Jacob  
8675 Bay 16th Street, Brooklyn, N. Y.
- Fishberg, Murray Leonard  
153 Morton Place, New York, N. Y.
- Fitzer, Aaron  
1166 Theriot Avenue, New York, N. Y.
- Fox, Pincus  
190 Norfolk Street, New York, N. Y.
- Frank, Jacob  
168 Brown Place, New York, N. Y.
- Frankel, David  
375 East Main Street, Bridgeport, Conn.
- Frankel, Leonard R.  
764 Trinity Avenue, New York, N. Y.
- Frankel, Sidney  
744 Hudson Avenue, West New York, N. J.
- Freed, Israel  
285 Van Buren Street, Brooklyn, N. Y.
- Friedberg, Alexander  
61 E. 95th Street, New York, N. Y.
- Friedland, Peter Robert  
3999 Dickinson Avenue, New York, N. Y.
- Gaal, Albert George  
574 Manhattan Avenue, Brooklyn, N. Y.
- Garrabone, Carmelo J.  
878 Fourth Avenue, Long Island City, N. Y.
- Geller, Isidore B.  
1218 Hoe Avenue, New York, N. Y.
- Gellis, Joseph  
60 Trenton Avenue, White Plains, N. Y.
- Gerson, Alexander  
1044 De Kalb Avenue, Brooklyn, N. Y.
- Ginsberg, Asna Mendelewska  
1927 University Avenue, Bronx, N. Y.
- Gise, Meyer  
1862-75th Street, Brooklyn, N. Y.
- Gitlin, Bernard Edward  
Box 23, Colchester, Conn.
- Giuliani, Arthur J.  
246½ Central Avenue, Union City, N. J.
- Glazer, Harry  
537 Claremont Parkway, Bronx, N. Y.
- Glick, William Joseph  
Central Valley, N. Y.
- Glinefsky, William  
1701 Eastburn Avenue, New York, N. Y.
- Godlin, Abraham  
Woodbourne, N. Y.
- Gold, Joseph  
1434 Bryant Avenue, New York, N. Y.
- Goldstein, Martin  
505 Bergen Avenue, Jersey City, N. J.
- Goldstein, Max  
871 Longwood Avenue, New York, N. Y.
- Gordon, J. Jack  
42-72nd Street, Brooklyn, N. Y.
- Gottlieb, George  
310 East 30th Street, New York, N. Y.
- Grant, Raymond L.  
120 Wait Avenue, Ithaca, N. Y.
- Grayer, Albert A.  
55 Hanson Place, Brooklyn, N. Y.
- Greenfader, Morris B.  
2223-62nd Street, Brooklyn, N. Y.
- Gregorczyk, Leon  
65 Williams Avenue, Jersey City, N. J.
- Grinwalski, Stephen  
109 Harwinton Road, Torrington, Conn.
- Gutes, Morris C.  
17-27 Van Sicklen Avenue, Brooklyn, N. Y.
- Halper, Arthur M.  
1055 University Avenue, New York, N. Y.
- Halper, Lewis  
1208 Maple Avenue, Peekskill, N. Y.
- Halperin, Harold  
531½ North Eighth Street, Reading, Pa.
- Halperin, Irving M.  
419 Ocean Avenue, Jersey City, N. J.
- Hamann, George P. D.  
398 Himrod Street, Brooklyn, N. Y.
- Hartman, Edward  
123 Cornelia Street, Brooklyn, N. Y.
- Hayne, Charles G., Jr.  
25 Reid Street, Charleston, S. C.
- Herbst, Arthur Stephan  
340 East 77th Street, New York, N. Y.
- Hofmann, Henry C.  
305 Dill Place, Brooklyn, N. Y.
- Homer, Theodore H., Jr.  
2412 Seventh Avenue, Apt. 46, New York, N. Y.
- Homnik, Jacob  
645 East 6th Street, New York, N. Y.
- Horowitz, Alexander  
79 East 107th Street, New York, N. Y.
- Horowitz, Barnet  
127 East Broadway, New York, N. Y.
- Horowitz, Samuel L.  
558 Vermont Street, Brooklyn, N. Y.
- Hutter, Isidore  
1291 Eastern Parkway, Brooklyn, N. Y.
- Jacaruso, John  
150 Sullivan Street, New York, N. Y.
- Jacobs, Herman  
296 Rochester Avenue, Brooklyn, N. Y.

- Jacobs, Meyer Jack  
18 Pike Street, New York, N. Y.
- Jaffe, Max  
Liberty, New York
- Jones, Herbert H.  
11 Fifth Street, Weehawken, N. J.
- Kaplan, Samuel  
39-04 60th Street, Woodside, L. I.
- Kaufman, Michael I.  
636 East 13th Street, New York, N. Y.
- Kaufman, Sydney W.  
2759 Sedgewick Avenue, New York, N. Y.
- Keller, Murray  
312 Madison Street, New York City
- Kerewsky, Isidor  
360 Garden Avenue, Mount Vernon, N. Y.
- Koslowsky, Harry  
1967-71st Street, Brooklyn, N. Y.
- Kramer, Benjamin  
630 East 137th Street, New York, N. Y.
- Kross, David T.  
2937 West 35th Street, Brooklyn, N. Y.
- Kugelmass, Samuel  
155 South Fourth Street, Brooklyn, N. Y.
- Lampert, Samuel  
447 Powell Street, Brooklyn, N. Y.
- Last, Ben  
824 East 181st Street, New York, N. Y.
- Lehrer, Morris  
186 Riverdale Avenue, Brooklyn, N. Y.
- Lepard, Thomas H.  
20 Fort Charles Place, New York, N. Y.
- Lerner, Irving  
Fleischmans, N. Y.
- Levine, Hyman  
921 Saratoga Avenue, Brooklyn, N. Y.
- Levine, Jonas  
7613-18th Avenue, Brooklyn, N. Y.
- Levine, Samuel  
801 West 181st Street, New York, N. Y.
- Livitt, Morris  
8950 Woodhaven Boulevard, Woodhaven,  
N. Y.
- Lewitus, Richard  
3310 Kossuth Avenue, New York, N. Y.
- Lipetz, Morris  
Grand Street, Riverhead, N. Y.
- Lipschitz, Edward  
236 East 82nd Street, New York, N. Y.
- Liss, Max  
347 East 17th Street, New York, N. Y.
- Lopez, Anacleto  
438 Ninth Avenue, New York, N. Y.
- Loss, Margaret  
1581 Fulton Avenue, New York, N. Y.
- Lubin, Sydney W.  
4214-12th Avenue, Brooklyn, N. Y.
- MacCurran, James F.  
12 Third Street, Weehawken, N. J.
- McSharry, William J.  
10 Dashby Court, Rockaway Beach, N. Y.
- Madansky, Nathan  
260 Milford Street, Brooklyn, N. Y.
- Malmud, Mayer M.  
4320-16th Avenue, Brooklyn, N. Y.
- Mancini, Thomas A.  
316 East 29th Street, New York, N. Y.
- Marino, Frank E.  
122-11th Street, College Point, N. Y.
- Marks, Edward H.  
1403 South Townsend Street, Syracuse, N. Y.
- Mascellaro, Hector E.  
343 First Avenue, Long Island City, N. Y.
- Matthes, Herbert M.  
209-12th Street, College Point, N. Y.
- Mazze, Jesse  
1467 Seabury Avenue, New York, N. Y.
- Meyer, Morris  
639 East 13th Street, New York, N. Y.
- Meyerson, Abraham  
1041 Elder Avenue, New York, N. Y.
- Miele, Louis Walter  
2153-82nd Street, Brooklyn, N. Y.
- Miller, Abraham  
197 Van Buren Street, Brooklyn, N. Y.
- Minarik, William J.  
3722-91st Street, Jackson Heights, L. I.
- Mishler, Benjamin  
52 Belmont Avenue, Brooklyn, N. Y.
- Monestersky, Morris  
923-53rd Street, Brooklyn, N. Y.
- Moskoff, Joseph W.  
277 West 117th Street, New York, N. Y.
- Nelson, Isidore Ben  
813 Centre Street, Bowling Green, Ky.
- Nestle, Leon  
9518-91st Street, Ozone Park, N. Y.
- Newer, Joseph G.  
1514 Lincoln Place, Brooklyn, N. Y.
- Novendstern, David  
130 Ocean Avenue, Jersey City, N. J.
- Ochitell, Morris  
2971 West 25th Street, Coney Island, N. Y.
- Oppenheim, Emanuel  
4802 Ft. Hamilton Parkway, Brooklyn, N. Y.
- Padnis, Nathan  
1240 Franklin Avenue, New York, N. Y.
- Palanzo, Charles R.  
134 Willow Street, Yonkers, N. Y.
- Parrini, Arthur T.  
1312 Avenue H, Brooklyn, N. Y.
- Pavone, Egidio  
64 Thompson Street, New York, N. Y.
- Perry, Harold  
66 East 96th Street, Brooklyn, N. Y.
- Perry, Sidney  
123 Rockaway Parkway, Brooklyn, N. Y.

- Perveler, Martin L.  
1710 Hoe Avenue, New York, N. Y.
- Petziner, Norman  
1225 Seneca Avenue, New York, N. Y.
- Pickman, Harry  
696 Watkin Street, Brooklyn, N. Y.
- Pomerantz, Max  
150 East Second Street, New York, N. Y.
- Posner, Murray W.  
608 Tinton Avenue, New York City
- Posner, Sidney  
923 Fox Street, New York, N. Y.
- Rafal, Sidney  
567 Sheffield Avenue, Brooklyn, N. Y.
- Razzo, Frances  
125 Second Avenue, New York, N. Y.
- Ricca, Joseph  
227 Van Sicklen Street, Brooklyn, N. Y.
- Ricciardi, Ralph  
1957 West Fourth Street, Brooklyn, N. Y.
- Risch, Samuel S.  
3052 LaSalle Avenue, New York, N. Y.
- Riveles, George  
63 East 100th Street, New York City
- Riveles, Julius  
385 East Third Street, New York, N. Y.
- Rocco, Emilio J.  
27 St. Edwards Street, Brooklyn, N. Y.
- Rosen, Julius  
70 Lenox Avenue, New York, N. Y.
- Rosenberg, Solomon  
197 Tenth Street, Long Island City, N. Y.
- Rosenberg, William N.  
945 West End Avenue, New York, N. Y.
- Rosenzweig, Harry  
19 Henry Street, New York, N. Y.
- Rothleder, Paul  
2869 West 27th Street, Brooklyn, N. Y.
- Rubinfeld, Leonard  
106 Elizabeth Street, Peekskill, N. Y.
- Rubin, Paul  
630 Garden Street, Hoboken, N. J.
- Rubinstein, Jack  
299 Mt. Eden Avenue, New York, N. Y.
- Ruderman, Joseph  
19 East 113th Street, New York, N. Y.
- Sacco, John G.  
P. O. Box No. 3, West End, N. J.
- Saia, Joseph J.  
7 Court Street, Astoria, N. Y.
- Sampson, James H.  
2347 Druid Hill Avenue, Baltimore, Md.
- Savitch, Milton  
348 East 15th Street, New York City
- Schiffman, Albert  
1482 Brook Avenue, New York, N. Y.
- Schloss, Max  
137 Monroe Street, New York, N. Y.
- Schneider, Moses  
1321 College Avenue, New York, N. Y.
- Schneider, Nathan  
283 Liberty Avenue, Brooklyn, N. Y.
- Schwartz, Abraham  
490 Ocean Parkway, Brooklyn, N. Y.
- Schwartz, Alexander  
1490 Macombs Road, New York, N. Y.
- Schwartz, Isadore  
69 Liberty Place, Weehawken N. J.
- Schwartz, Max  
624 Hopkinson Avenue, Brooklyn, N. Y.
- Schwartz, Sidney  
256 Rivington Street, New York, N. Y.
- Seidel, Leo  
342 East 67th Street, New York, N. Y.
- Shefkowitz, Julius L.  
1076 Faile Street, New York, N. Y.
- Silberman, Joel  
585 East 169th Street, New York, N. Y.
- Silverman, Hyman  
424 Chester Street, Brooklyn, N. Y.
- Simon, Irving Edward  
708 East 176th Street, New York, N. Y.
- Simon, Moses B.  
137 Mansion Street, Poughkeepsie, N. Y.
- Smolowitz, Julius  
82 East 111th Street, New York, N. Y.
- Snyder, Sol  
535 West 163rd Street, New York, N. Y.
- Soldo, Americo  
419 East 160th Street, New York, N. Y.
- Somers, Joseph  
1427-41st Street, Brooklyn, N. Y.
- Starman, Arthur A.  
1202 Miller Street, Utica, N. Y.
- Stein, Irving  
229 West 101st Street, New York, N. Y.
- Stein, Solomon Charles  
1950 East 21st Street, Brooklyn, N. Y.
- Steir, Edward  
60 Sheriff Street, New York City
- Strongin, Jack  
105-20 75th Street, Woodhaven, N. Y.
- Tabachnick, William  
1709 Bathgate Avenue, New York, N. Y.
- Tannenbaum, Nathan  
52 Bay 22nd Street, Brooklyn, N. Y.
- Tenebra, Mary  
231 East Fifth Street, New York, N. Y.
- Tiersfeld, Nathan  
18 East 111th Street, New York, N. Y.
- Tomashoff, Sidney  
4502-16th Avenue, Brooklyn, N. Y.
- Tortora, Anthony  
194 Cambridge Avenue, Jersey City, N. J.
- Troisi, Mario Philip  
2211 Second Avenue, New York, N. Y.

- Uva, Nicholas  
138 Sackman Street, Brooklyn, N. Y.
- Valenti, Joseph  
378 Fulton Avenue, Jersey City, N. J.
- Van Beuren, John H.  
81 Chambers Street, Newburgh, N. Y.
- Vellensky, Bernard  
1437-40th Street, Brooklyn, N. Y.
- Volpert, Bernard L.  
P. O. Box 170, Newman, N. Y.
- Wagner, Morris  
341 East 56th Street, New York, N. Y.
- Wagreich, Arthur  
1216 Hoe Avenue, New York, N. Y.
- Waldinger, Sam  
150 Keap Street, Brooklyn, N. Y.
- Wallerick, Solomon  
82 Columbia Street, New York, N. Y.
- Wart, Arthur Henry  
Sandy Creek, N. Y.
- Washington, Izzeta L. A.  
281 Edgecomb Avenue, Apt. 1-D, New York, N. Y.
- Weinberg, Louis Joseph  
610 West 143rd Street, New York, N. Y.
- Weinstein, Morris  
1546 East 172nd Street, New York, N. Y.
- Weiss, Harold  
140-29 Cherry Avenue, Flushing, N. Y.
- Weiss, Martin  
294 East Third Street, New York, N. Y.
- Weiss, Samuel  
2162 Valentine Avenue, New York, N. Y.
- Welt, Morton  
2056-74th Street, Brooklyn, N. Y.
- Wiesenfeld, Irving  
957 Fox Street, New York, N. Y.
- Winer, Abe Marvin  
440 East Sixth Street, New York, N. Y.
- Winokur, Emanuel  
577 Bushwick Avenue, Brooklyn, N. Y.
- Wise, Fred  
928 Tiffany Street, New York, N. Y.
- Wohl, Benjamin  
797 Washington Avenue, Brooklyn, N. Y.
- Yachnowitz, Louis  
120 Ludlow Street, New York, N. Y.
- Zaid, Martin  
155 Madison Street, New York, N. Y.
- Zanca, Natale Louis  
1320 Brook Avenue, New York, N. Y.
- Zanchelli, Gene N.  
343 East 152nd Street, New York, N. Y.
- Zimand, Philip  
2312 Mermaid Avenue, Brooklyn, N. Y.
- Zimmerman, Everett L.  
River Edge, N. J.
- Bloom, Ida  
3926-65th Street, Woodside, L. I.
- Boeder, Leo  
3420 Duncomb Avenue, New York, N. Y.
- Buehler, Frederick  
218-29 94th Road, Queens Village, L. I.
- Brody, Herbert  
1401 Grand Concourse, New York, N. Y.
- Canis, Otto F. A.  
Cedarhurst, N. Y.
- Cayan, Kathryn  
159 Howard Street, Passaic, N. J.
- Charlton, H. W.  
Eatontown, N. J.
- Chisman, Michael  
27 Kulick Street, Clifton, N. J.
- Clamer, Harry  
514 Monroe Avenue, Elizabeth, N. J.
- Clark, J. Maitland  
55 Hanson Place, Brooklyn, N. Y.
- Corcoran, John Joseph  
362 West 52nd Street, New York, N. Y.
- Costarella, Renato  
315 W. 14th Street, New York, N. Y.
- Curitz, Tully  
1638 East 15th Street, Brooklyn, N. Y.
- De Carlo, Louis  
4638 Greene Street, Germantown, Philadelphia, Pa.
- Drucker, Gardel  
64 South Ninth Street, Brooklyn, N. Y.
- Edwards, Joseph H.  
Cleverly Hill, Sandy Point St. Kitts, British West Indies
- Egry, Charles  
70-17 34th Street, Jackson Heights, L. I.
- Einhorn, Emil  
1647-50th Street, Brooklyn, N. Y.
- Estrin, Irving  
1107 Lenox Road, Brooklyn, N. Y.
- Fierer, Solomon  
703 Greene Avenue, Brooklyn, N. Y.
- Fuller, George  
111 North Walnut Street, East Orange, N. J.
- Kadish, Frank B.  
21 South Dean Street, Englewood, N. J.
- Kaplan, Herbert B.  
185 Bergen Avenue, Jersey City, N. J.
- Karpman, Alexander  
221 Sherman Avenue, New York, N. Y.
- Kolbe, Alan  
136 Pulaski Street, Brooklyn, N. Y.
- Kusikoff, Abraham  
2001 University Avenue, New York, N. Y.
- Lawentman, Julius  
115 East 114th Street, New York, N. Y.
- Lou, En Hou  
74 Rue Fontainer, French Conc. Tientsin, China

## EVENING COURSES

- Miller, Moses  
417 South Fifth Street, Brooklyn, N. Y.
- Ramichvili, Benjamin  
217 West 79th Street, New York City
- Sanders, Herbert  
Fifth Avenue, corner 80th Street, New York City
- Schneider, Charles  
82 Beekman Street, New York, N. Y.
- Schulberg, L. J.  
303 Marcy Avenue, Brooklyn, N. Y.
- Seider, Solomon  
560 West 180th Street, New York, N. Y.
- Senegas, Jean  
201 West 89th Street, New York, N. Y.
- Siegel, Max  
778 Driggs Avenue, Bronx, N. Y.
- Sorin, Mae  
275 West 117th Street, New York, N. Y.
- Steinberg, Charles  
445 Pulaski Street, Brooklyn, N. Y.
- Thom, Hon Sing  
31 Pell Street, New York, N. Y.
- Turner, Charles  
9117-81st Street, Woodhaven, L. I.
- Weaver, George  
168-16 84th Avenue, Jamaica, N. Y.
- Wimpie, Myra P.  
1245 Stratford Avenue, New York, N. Y.
- Wong, San Wah  
28 Mott Street, New York, N. Y.
- Yee, Chester H.  
182 Washington Park, Brooklyn, N. Y.

## SCHEME OF ATTENDANCE

## COLLEGE CLASS FIRST YEAR

*Tuesday*

Section 1		Section 2		Section 3		Section 4	
9-10	MM 1-2 Botany Lect.	MM 1-2 Botany Lect.	MM 1-2 Botany Lect.	MM 1-2 Botany Lect.	MM 1-2 Botany Lect.	MM 1-2 Botany Lect.	MM 1-2 Botany Lect.
10-11	Phr. 3 Pharmacy Lab.	Phr. 3 Pharmacy Lab.	MM 3-4 Histology Lect.	MM 3-4 Histology Lect.	MM 3-4 Histology Lect.	MM 3-4 Histology Lect.	MM 3-4 Histology Lect.
11-12	Phr. 3 Pharmacy Lab.	Phr. 3 Pharmacy Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.
12-1	Phr. 3 Pharmacy Lab.	Phr. 3 Pharmacy Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.
2-3	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.
3-4	Chm. 1-2 Physics Rec.	MM 1-2 Botany Rec.	MM 5-6 Posology	MM 5-6 Posology	MM 5-6 Posology	MM 5-6 Posology	MM 5-6 Posology
4-5	Phr. 1-2 Pharmacy Rec.	Chm. 1-2 Physics Rec.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.
5-6	MM 1-2 Botany Rec.	Phr. 1-2 Pharmacy Rec.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.

*Thursday*

9-10	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.	Phr. 1-2 Pharmacy Lect.
10-11	MM 3-4 Histology Lect.	MM 3-4 Histology Lect.	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.
11-12	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.
12-1	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.
2-3	Chm. 3-4 Chemistry Lect.	Chm. 3-4 Chemistry Lect.	Chm. 3-4 Chemistry Lect.	Chm. 3-4 Chemistry Lect.	Chm. 3-4 Chemistry Lect.	Chm. 3-4 Chemistry Lect.	Chm. 3-4 Chemistry Lect.
3-4	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	Phr. 1-2 Pharmacy Rec.	Phr. 1-2 Pharmacy Rec.	Phr. 1-2 Pharmacy Rec.	Phr. 1-2 Pharmacy Rec.	Phr. 1-2 Pharmacy Rec.
4-5	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	MM 1-2 Botany Rec.	MM 1-2 Botany Rec.	MM 1-2 Botany Rec.	MM 1-2 Botany Rec.	MM 1-2 Botany Rec.
5-6	Chm. 5-6 Chemistry Lab.	Chm. 5-6 Chemistry Lab.	Chm. 3-4 Chemistry Rec.	Chm. 3-4 Chemistry Rec.	Chm. 3-4 Chemistry Rec.	Chm. 3-4 Chemistry Rec.	Chm. 3-4 Chemistry Rec.

*Saturday*

9-10	Chm. 1-2 Chemistry Lect.	Chm. 3-4 Chemistry Lect.	Chm. 3-4 Chemistry Lect.	Chm. 3-4 Chemistry Lect.	Chm. 3-4 Chemistry Lect.	Chm. 3-4 Chemistry Lect.	Chm. 3-4 Chemistry Lect.
10-11	MM 5-6 Posology	MM 5-6 Posology	Phr. 2-3 Pharmacy Lab.	Phr. 2-3 Pharmacy Lab.	Phr. 2-3 Pharmacy Lab.	Phr. 2-3 Pharmacy Lab.	Phr. 2-3 Pharmacy Lab.
11-12	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	Phr. 2-3 Pharmacy Lab.	Phr. 2-3 Pharmacy Lab.	Phr. 2-3 Pharmacy Lab.	Phr. 2-3 Pharmacy Lab.	Phr. 2-3 Pharmacy Lab.
12-1	MM 3-4 Botany Lab.	MM 3-4 Botany Lab.	Phr. 2-3 Pharmacy Lab.	Phr. 2-3 Pharmacy Lab.	Phr. 2-3 Pharmacy Lab.	Phr. 2-3 Pharmacy Lab.	Phr. 2-3 Pharmacy Lab.
2-3	Chm. 1-2 Physics Lect.	Chm. 1-2 Physics Lect.	Chm. 1-2 Physics Lect.	Chm. 1-2 Physics Lect.	Chm. 1-2 Physics Lect.	Chm. 1-2 Physics Lect.	Chm. 1-2 Physics Lect.
3-4	Chm. 5-6 A. Chem. (Arith.) Rec.	Chm. 5-6 A. Chem. (Arith.) Rec.	Chm. 5-6 A. Chem. (Arith.) Rec.	Chm. 5-6 A. Chem. (Arith.) Rec.	Chm. 5-6 A. Chem. (Arith.) Rec.	Chm. 5-6 A. Chem. (Arith.) Rec.	Chm. 5-6 A. Chem. (Arith.) Rec.
4-5	Chm. 3-4 Chemistry Rec.	Phr. 1-2 Pharmacy Rec.	Chm. 1-2 Physics Rec.	Chm. 1-2 Physics Rec.	Chm. 1-2 Physics Rec.	Chm. 1-2 Physics Rec.	Chm. 1-2 Physics Rec.
5-6	Phr. 1-2 Pharmacy Rec.	Chm. 3-4 Chemistry Rec.	Phr. 1-2 Pharmacy Rec.	Phr. 1-2 Pharmacy Rec.	Phr. 1-2 Pharmacy Rec.	Phr. 1-2 Pharmacy Rec.	Phr. 1-2 Pharmacy Rec.



SCHEME OF ATTENDANCE

COLLEGE CLASS SECOND YEAR

Monday

	Section IX	Division X Section IX	Section IIIx	Section IVy	Division Y Section Vy	Section VIy
9-10	Phr. 51-52 Pharmacy Rec.	Phr. 51-52 Pharmacy Rec.	Phr. 51-52 Pharmacy Rec.	Phr. 51-52 Pharmacy Rec.	Chm. 55-56 Chemistry Rec.	Chm. 55-56 Chemistry Rec.
10-11	MM 57-58 Physiology Lect.	MM 57-58 Physiology Lect.	MM 57-58 Physiology Lect.	MM 57-58 Physiology Lect.	MM 57-58 Physiology Lect.	MM 57-58 Physiology Lect.
11-12	Phr. 59-60 Compl. Pharm. Lect.	Phr. 59-60 Compl. Pharm. Lect.	Phr. 59-60 Compl. Pharm. Lect.	Phr. 59-60 Compl. Pharm. Lect.	Phr. 59-60 Compl. Pharm. Lect.	Phr. 59-60 Compl. Pharm. Lect.
12-1	Chm. 51-52 Physics Lect.	Chm. 51-52 Physics Lect.	Chm. 51-52 Physics Lect.	Chm. 51-52 Physics Lect.	Chm. 51-52 Physics Lect.	Chm. 51-52 Physics Lect.
2-3	Phr. 59-60 Compl. Pharmacy	Phr. 59-60 Compl. Pharmacy	MM 59-60 Microbiology	MM 59-60 Microbiology	MM 57-58 Physiology Rec.	MM 57-58 Physiology Rec.
3-4	Phr. 59-60 Compl. Pharmacy	Phr. 59-60 Compl. Pharmacy	MM 59-60 Microbiology	MM 59-60 Microbiology	Phr. 51-52 Pharmacy Rec.	Phr. 51-52 Pharmacy Rec.
4-5	MM 57-58 Physiology Rec.	Chm. 55-56 Chemistry Rec.	Phr. 59-60 Compl. Pharmacy	Phr. 59-60 Compl. Pharmacy	MM 59-60 Microbiology	MM 59-60 Microbiology
5-6	Chm. 55-56 Chem. Rec.	Phr. 51-52 Pharm. Rec.	Phr. 59-60 Compl. Pharmacy	Phr. 59-60 Compl. Pharmacy	MM 59-60 Microbiology	MM 59-60 Microbiology
<i>Wednesday</i>						
9-10	Chm. 55-56 Chemistry Lect.	Chm. 55-56 Chemistry Lect.	Chm. 55-56 Chemistry Lect.	Chm. 55-56 Chemistry Lect.	Chm. 55-56 Chemistry Lect.	Chm. 55-56 Chemistry Lect.
10-11	Chm. 59-60 Chemistry Lab.	Chm. 55-60 Chemistry Lab.	Chm. 59-60 Chemistry Lab.	MM 53-54 Phar cog. Lab.	MM 53-54 Phar cog Lab.	MM 53-54 Phar cog. Lab.
12-1	Phr. 51-52 Pharmacy Lect.	Phr. 51-52 Pharmacy Lect.	Phr. 51-52 Pharmacy Lect.	Phr. 51-52 Pharmacy Lect.	Phr. 51-52 Pharmacy Lect.	Phr. 51-52 Pharmacy Lect.
2-3	Phr. 51-52 Pharmacy Rec.	MM 57-58 Physiology Rec.	Chm. 55-56 Chemistry Rec.	Chm. 55-56 Chemistry Rec.	Phr. 53 Pharmacy Lab.	Phr. 53 Pharmacy Lab.
3-4	MM 59-60 Microbiology	MM 59-60 Microbiology	MM 59-60 Microbiology	MM 59-60 Microbiology	Phr. 53 Pharmacy Lab.	Phr. 53 Pharmacy Lab.
4-5	MM 59-60 Microbiology	MM 59-60 Microbiology	MM 59-60 Microbiology	MM 59-60 Microbiology	Phr. 53 Pharmacy Lab.	Phr. 53 Pharmacy Lab.
5-6	MM 59-60 Microbiology	MM 59-60 Microbiology	MM 59-60 Microbiology	MM 59-60 Microbiology	Phr. 53 Pharmacy Lab.	Phr. 53 Pharmacy Lab.

*Friday*

9-10	Chm. 55-56 Chemistry Lect. { Pharmacy Lab.	Chm. 55-56 Chemistry Lect. { Phr. 53 { Pharmacy Lab.	Chm. 55-56 Chemistry Lect. { Chm. 59-60 { Chemistry Lab.	Chm. 55-56 Chemistry Lect. { Chm. 59-60 { Chemistry Lab.
10-1				
2-3	Phr. 51-52 Pharmacy Lect.	Phr. 51-52 Pharmacy Lect.	Phr. 51-52 Pharmacy Lect.	Phr. 51-52 Pharmacy Lect.
3-4				
4-5	MM 53-54 Pharmacog'y Lab.	MM 53-54 Phar cog Lab.	MM 57-58 Physiology Rec.	Phr. 59-60 Coml. Pharmacy
5-6			Phr. 51-52 Pharmacy Rec.	Phr. 59-60 Coml. Pharmacy Phr. 51-52 Pharmacy Rec.

## SCHEME OF ATTENDANCE

## COLLEGE CLASS THIRD YEAR

*Monday*

	Section Ix	Section Iix	Section IIIx	Section IIIy	Section IVy	Section Vy
9-10	MM 101-102 Mat. Med. Lect.	MM 101-102 Mat. Med. Lect.	MM 101-102 Mat. Med. Lect.	MM 101-102 Mat. Med. Lect.	MM 101-102 Mat. Med. Lect.	MM 101-102 Mat. Med. Lect.
10-1	Chm. 109-110 Chm. and Pharm. Lab.*	Chm. 109-110 Chm. and Pharm. Lab.*	Chm. 109-110 Chm. and Pharm. Lab.*	Phr. 105-106 Pharm. and Chm. Lab.**	Phr. 105-106 Pharm. and Chm. Lab.**	Phr. 105-106 Pharm. and Chm. Lab.**
2-3	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.
3-6	Chm. 109-110 Chm. and Pharm. Lab.*	Chm. 109-110 Chm. and Pharm. Lab.*	Chm. 109-110 Chm. and Pharm. Lab.*	Phr. 105-106 Pharm. and Chm. Lab.**	Phr. 105-106 Pharm. and Chm. Lab.**	Phr. 105-106 Pharm. and Chm. Lab.**
2-6	Phr. 107-108 Disp. Pharmacy Lab.	Phr. 107-108 Disp. Pharmacy Lab.	Phr. 107-108 Disp. Pharmacy Lab.			

*Tuesday*

\*September 23, 1920 to January 17, 1930 Chemistry Laboratory and January 27 to May 9, 1930 Pharmacy Laboratory.  
 \*\*September 23, 1929 to January 17, 1930 Pharmacy Laboratory and January 27 to May 9, 1930 Chemistry Laboratory.

*Wednesday*

9-10	Chm. 103-104 Chemistry Rec.	Phr. 101-102 Pharmacy Rec.	MM 101-102 Mat. Med. Rec.	MM 101-102 Mat. Med. Rec.	Phr. 115-116 Business Pharm. Rec.	Phr. 101-102 Pharm. Rec.
10-11	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.
11-12	Chm. 103-104 Chemistry Lect.	Chm. 104-105 Chemistry Lect.	Chm. 103-104 Chemistry Lect.	Chm. 103-104 Chemistry Lect.	Chm. 103-104 Chemistry Lect.	Chm. 103-104 Chemistry Lect.
12-1	Chm. 107-108 Newer Remedies Lect.	Chm. 107-108 Newer Remedies Lect.	Chm. 107-108 Newer Remedies Lect.	Chm. 107-108 Newer Remedies Lect.	Chm. 107-108 Newer Remedies Lect.	Chm. 107-108 Newer Remedies Lect.
2-3	Phr. 101-102 Pharm. Rec.	MM 101-102 Mat. Med. Rec.	Phr. 115-116 Business Pharm. Rec.	Phr. 115-116 Business Pharm. Rec.	Phr. 101-102 Pharm. Rec.	Phr. 101-102 Pharm. Rec.
3-4	MM 109-110 Pharm. Sundries Lect.	MM 109-110 Pharm. Sundries Lect.	MM 109-110 Pharm. Sundries Lect.	MM 109-110 Pharm. Sundries Lect.	MM 109-110 Pharm. Sundries Lect.	MM 109-110 Pharm. Sundries Lect.
4-5	Phr. 115-116 Business Pharm. Rec.	Chm. 103-104 Chemistry Rec.	Chm. 103-104 Chemistry Rec.	Chm. 103-104 Chemistry Rec.	Chm. 103-104 Chemistry Rec.	Chm. 103-104 Chemistry Rec.
5-6	MM 101-102 Mat. Med. Rec.	Phr. 115-116 Business Pharm. Rec.	Chm. 103-104 Chemistry Rec.	Chm. 103-104 Chemistry Rec.	Chm. 103-104 Chemistry Rec.	MM 101-102 Mat. Med. Rec.

*Thursday*

9-1			Phr. 107-108 Disp. Pharmacy Lab.	Phr. 107-108 Disp. Pharmacy Lab.	Phr. 107-108 Disp. Pharmacy Lab.	Phr. 107-108 Disp. Pharmacy Lab.
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*Friday*

9-10	MM 101-102 Mat. Med. Rec.	MM 101-102 Mat. Med. Rec.	Chm. 103-104 Chemistry Rec.	Chm. 103-104 Chemistry Rec.	Phr. 101-102 Pharm. Rec.	Chm. 103-104 Chemistry Rec.
10-11	MM 101-102 Mat. Med. Lect.	MM 101-102 Mat. Med. Lect.	MM 101-102 Mat. Med. Lect.	MM 101-102 Mat. Med. Lect.	MM 101-102 Mat. Med. Lect.	MM 101-102 Mat. Med. Lect.
11-12	Chm. 103-104 Chemistry Lect.	Chm. 103-104 Chemistry Lect.	Chm. 103-104 Chemistry Lect.	Chm. 103-104 Chemistry Lect.	Chm. 103-104 Chemistry Lect.	Chm. 103-104 Chemistry Lect.
12-1	Phr. 115-116 Business Pharm. Lect.	Phr. 115-116 Business Pharm. Lect.	Phr. 115-116 Business Pharm. Lect.	Phr. 115-116 Business Pharm. Lect.	Phr. 115-116 Business Pharm. Lect.	Phr. 115-116 Business Pharm. Lect.
2-3	Phr. 101-102 Pharm. Rec.	Chm. 103-104 Chemistry Rec.	Phr. 101-102 Pharm. Rec.	Phr. 101-102 Pharm. Rec.	MM 101-102 Mat. Med. Rec.	Phr. 115-116 Business Pharm. Rec.
3-4	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.	Phr. 101-102 Pharm. Lect.
4-5	Chm. 103-104 Chemistry Rec.	Phr. 101-102 Pharm. Rec.	Phr. 101-102 Pharm. Rec.	Phr. 101-102 Pharm. Rec.	Chm. 103-104 Chemistry Rec.	MM 101-102 Mat. Med. Rec.
5-6	Phr. 115-116 Jurisprudence Lect.	Phr. 115-116 Jurisprudence Lect.	Jurisprudence Lect.	Jurisprudence Lect.	Phr. 115-116 Jurisprudence Lect.	Phr. 115-116 Jurisprudence Lect.

## FIRST-YEAR UNIVERSITY CLASS

<i>Monday</i>			<i>Friday</i>		
9-10	MM 1-2	Botany Rec.	9-10	MM 9-10	Morphology and Histology Lec.
10-1	Phr. 5	Pharmacy Lab.	10-1	MM 9-10	Morphology and Histology Lab.
2-5	Phr. 5	Pharmacy Lab.	2-3	Coll. 1-2	English
<i>Tuesday</i>			3-4	Coll. 3-4	American Government
9-10	MM 1-2	Botany Lect.	<i>Saturday</i>		
10-11	Coll. 1-2	English	9-10	Chm. 3-4	Chemistry Lect.
11-12	Coll. 3-4	American Government	10-11	Chm. 3-4	Chemistry Rec.
12-1	Phr. 1-2	Pharmacy Rec.	11-12	Chm. 7-8	Analytical Chem. Rec.
2-3	Phr. 1-2	Pharmacy Lect.	12-1	Chm. 1-2	Physics Rec.
3-4	Phr. 1-2	Pharmacy Rec.	2-3	Chm. 1-2	Physics Lect.
<i>Thursday</i>			3-4	Coll. 1-2	English
9-10	Phr. 1-2	Pharmacy Lect.	4-5	Coll. 3-4	American Government
10-1	Chm. 7-8	Chemistry Lab.	* On alternate weeks.		
2-3	Chm. 3-4	Chemistry Lect.			
3-4	MM 9-10	Morphology and Histology Lab.			
4-5*	MM 7-8	Posology			

## SECOND-YEAR UNIVERSITY CLASS

<i>Monday</i>			<i>Friday</i>		
9-10	MM 57-58	Physiology Rec.	9-10	Chm. 55-56	Chemistry Lect.
10-11	MM 57-58	Physiol. Lect.	10-12	Phr. 59-60	Commercial Pharm.
11-12	Phr. 59-60	Com. Phar. Lect.	12-1	Phr. 51-52	Pharmacy Rec.
12-1	Chm. 51-52	Physics Lect.	2-3	Phr. 51-52	Pharm. Lect.
2-4	MM 55-56	Phar'cog. Lab.	3-4	Coll. 51-52	German
4-5	Coll. 51-52	German	<i>Saturday</i>		
<i>Wednesday</i>			9-1	Phr. 57	Disp. Pharm. Lab.* or
9-10	Chm. 55-56	Chemistry Lect.	Chm. 54	Physics Lab.**	
10-1	Phr. 54	Pharmacy Lab.	2-3	Phr. 51-52	Pharm. Rec.
2-3	Phr. 51-52	Pharmacy Lect.	3-5	Coll. 51-52	German
3-4	Chm. 55-56	Chemistry Rec.	* Disp. Pharmacy Lab. Sept. 28, 1929 to Jan. 18, 1930.		
4-5	Coll. 51-52	German	**Physics Lab. Feb. 1, 1930 to May 10, 1930.		
<i>Thursday</i>					
10-1	MM 61-62	Bacteriology Lab.			
2-5	Chm. 57-58	Chemistry Lab.			

## THIRD-YEAR UNIVERSITY CLASS

<i>Monday</i>			<i>Friday</i> / <i>Toxicol</i>		
9-10	MM 101-102	Mat. Med. Lect.	9-10	Coll. 105-106	Mathematics
10-11	MM 101-102	Mat. Med. Rec.	10-11	MM <del>101-102</del>	Mat. Med. Lect.
11-1	MM 111-112	Phar'cog Lab.	11-12	Chm. 103-104	Chemistry Lect.
2-3	Phr. 109-110	Pharmacy Lect.	12-1	Phr. 115-116	Coml. Pharmacy Lect.
3-4	Coll. 105-106	Mathematics	2-3	Phr. 113	Disp. or Chem. Laboratory*
4-5	Phr. 109-110	Pharmacy Rec.	3-4	or	Disp. or Chem. Laboratory
<i>Tuesday</i>			4-5	Chm. 106	Disp. or Chem. Laboratory
9-1	Phar. 111	Laboratory*	5-6	Phr. 115-116	Jurisprudence Lect.
2-5	Chm. 106	Laboratory	<i>Saturday</i>		
<i>Wednesday</i>			9-10	Chm. 101-102	Theories of Chem.
9-10	MM 101-102	Mat. Med. Rec.	10-11	Phr. 111	Laboratory*
10-11	Phr. 109-110	Pharmacy Lect.	11-12	or	Laboratory
11-12	Chm. 103-104	Chemistry Lect.	12-1	Chm. 106	Laboratory
12-1	Chm. 103-104	Chemistry Rec.	2-3	Coll. 105-106	Mathematics
2-3	Phr. 111	Laboratory*	* Pharmacy Lab. Sept. 23 to Dec. 14, 1929; Chemistry Lab. Dec. 16, 1929 to May 10, 1930.		
3-4	or	Laboratory			
4-5	Chm. 106	Laboratory			

## UNIVERSITY CLASS SENIOR YEAR

Lecture and recitation courses extending throughout the year.

*Tuesday*

9-10	Quantitative Anal. Lect.
10-11	Food Analysis Lect.
11-12	Bibliography
12-1	Pharmacy Lect.

*Wednesday*

2-3	Biological Chemistry Lect.
3-4	Physiology Lect.

*Laboratory Courses*

All hours on Monday, Tuesday, Wednesday, Thursday and Friday from 9-1 and 2-5, excepting those stated for lectures will be devoted to laboratory work.

Analytical Chemistry, Sept. 23-Nov. 15  
 Food Analysis and Toxicology, Nov. 18-Jan 24.  
 Pharmacy, Jan. 27-Mar. 21  
 Pharmacognosy and Taxonomy, Mar. 24-May 16

} 8 weeks each

## ACADEMIC CALENDAR

1929

- June 10–Aug. 19. Summer Laboratory Courses.  
Sept. 4–6. Registration for first-year candidates.  
10–12. Supplementary Examinations.  
18–19. Registration for second-, third- and fourth-year candidates.  
23. Monday, One Hundredth Session begins. Second-, Third- and Fourth-Year Classes assemble 9 a. m.  
24. Tuesday, First-Year Classes assemble 9 a. m.  
Oct. 7. Monday, Evening Courses start.  
Nov. 5. Tuesday, Election Day, Holiday.  
28. Thursday, to November 30, Saturday, inclusive. Thanksgiving Holidays.  
Dec. 23. Monday, to

1930

- Jan. 4. Saturday, inclusive, Christmas Holidays.  
6. Monday, Sessions resumed.  
20–25. Mid-Year Examinations.  
20. Monday, Second Semester, Evening Courses start.  
Feb. 12. Wednesday, Lincoln's Birthday, Holiday.  
22. Saturday, Washington's Birthday, Holiday.  
Apr. 7. Monday, All classes. Last day for applying for final examinations with payment of fee.  
18–19. Spring Holiday.  
May 9. Friday, Evening Courses close.  
12–17. Final Examinations, 1st-, 2nd-, 3rd-year College and University Classes.  
19–21. Final Examinations, Senior University Class.  
28. Wednesday, First- and Second-Year Exercises (Alumni Day).  
29. Thursday, College Commencement.  
June 4. Tuesday, University Commencement.

## SCHEDULE OF EXAMINATIONS

### *Supplementary Examinations*

#### FIRST-YEAR COLLEGE AND UNIVERSITY CLASSES

1929

- Sept. 10. Tuesday, 9–12 a. m., Pharmacy.  
11. Wednesday, 9–12 a. m., Chemistry.  
Wednesday, 2–5 p. m., Physics.  
12. Thursday, 9–12 a. m., Botany, Posology.  
Thursday, 2–5 p. m., English, American Government.

## SECOND-YEAR COLLEGE AND UNIVERSITY CLASSES

- Sept. 10. Tuesday, 9-12 a. m., Pharmacy.  
 Tuesday, 2-5 p. m., Jurisprudence and Accounting.
11. Wednesday, 9-12 a. m., Chemistry.  
 Wednesday, 2-5 p. m., Physics.
12. Thursday, 9-12 a. m., Physiology. Biology of Microorganisms  
 Thursday, 2-5 p. m., German.

## THIRD-YEAR UNIVERSITY CLASS

- Sept. 10. Tuesday, 9-12, Pharmacy.  
 Tuesday, 2-5, Dispensing Pharmacy.
11. Wednesday, 9-12, Organic Chemistry.  
 Wednesday, 2-5, Theories of Chemistry.

*Mid-Year Examinations and Tests*

1930

- Jan. 20-25. A schedule of these examinations and tests will be posted on the bulletin boards. Students not in residence should consult the Registrar for information regarding them.

*Final Examinations*

## FIRST-YEAR COLLEGE AND UNIVERSITY CLASSES

- May 13. Tuesday, 9-12, Botany, Posology.  
 Tuesday, 2-5, Chemistry
15. Thursday, 9-12, Physics.  
 Thursday, 2-5 Pharmacy.
17. Saturday, 9-12, English (Univ.), American Government (Univ.).

## SECOND-YEAR COLLEGE AND UNIVERSITY CLASSES

- May 12. Monday, 9-12, Theoretical Pharmacy.  
 Monday, 2-5, Physiology, Microbiology (College).
14. Wednesday, 9-12, Chemistry.  
 Wednesday, 2-5, Physics.
16. Friday, 9-12, Commerical Pharmacy.  
 Friday, 2-5, German (Univ.).

## THIRD-YEAR COLLEGE AND UNIVERSITY CLASSES

- May 12. Monday, 9-12, Organic Chemistry.  
 Monday, 2-5, Newer Remedies (College).
- May 13. Tuesday, 9-12, Theories of Chemistry (Univ.).  
 Tuesday, 2-5, Mathematics (Univ.).
- May 14. Wednesday, 9-12, Theoretical Pharmacy.  
 Wednesday, 2-5, Commerical Pharmacy.
- May 16. Friday, 9-12, Materia Medica.  
 Friday, 2-5, Toxicology.

## FOURTH-YEAR UNIVERSITY CLASS

- May 19. Monday, 9-12, Senior Pharmacy.  
Monday, 1-4, Senior, Inorganic Quantitative Analysis.
20. Tuesday, 9-12, Senior, Food Analysis and Toxicology.
21. Wednesday, 9-5, Senior Biological Chemistry.  
Wednesday, 9-5 Senior Physiology.



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# Columbia University

## BULLETIN OF INFORMATION

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Thirtieth Series, No. 44

August 3, 1930

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ANNOUNCEMENT OF THE

### COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

FOR THE WINTER AND SPRING SESSIONS

1930-1931



113-119 WEST 68TH STREET  
NEW YORK

# Columbia University Bulletin of Information

Thirtieth Series, No. 44

August 3, 1930

Issued weekly at Columbia University, Morningside heights, New York, N. Y. Entered as second-class matter August 10, 1918, at the Post Office at New York, N. Y., under the Act of August 24, 1912. Acceptance for mailing at a special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized. These include:

1. Reports of the President and Treasurer to the Trustees.
2. The Catalogue Number, the Directory Number and the Announcements of the several Colleges and Schools, and of certain Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.

C. U. P. 22,000-1930

For special or more detailed information than is given in this Announcement, applicants are requested to address the Registrar of the College, 115 West 68th Street. His office hours are as follows: From September 1, 1930 to May 1, 1931, daily except Saturdays, 9 a. m. to 5 p. m.; Saturdays, 9 a. m. to 12 m. Other portions of the year, daily (except Saturdays), 9:30 a. m. to 4 p. m.; Saturdays, 9:30 a. m. to 12 m.





COLLEGE OF PHARMACY OF THE CITY OF NEW YORK  
113-119 WEST SIXTY-EIGHTH STREET

# Columbia University

in the City of New York

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ANNOUNCEMENT OF THE

## COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

FOR THE WINTER AND SPRING SESSIONS

1930-1931



113-119 WEST 68TH STREET  
NEW YORK

This college reserves the right to make such changes in the curriculum, schedule, calendar, and regulations appearing in this Announcement, as circumstances may require.

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# 1930

							SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY								SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																	
<b>Jan.</b>	..	..	..	1	2	3	4	5	6	7	8	9	10	11	<b>May</b>	..	..	..	7	8	9	10	11	12	13	14	15	16	17	<b>Sept.</b>	..	1	2	3	4	5	6	7	8	9	10	11	12	13
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	9	10	11	12	13	14	15	16	17	18	19	20	21	22		8	9	10	11	12	13	14	15	16	17	18	19	20	21		13	14	15	16	17	18	19	20	21	22	23	24	25	26
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# 1931

							SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY								SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY																	
<b>Jan.</b>	..	..	..	..	1	2	3	4	5	6	7	8	9	10	<b>May</b>	..	..	..	..	..	..	..	1	2	3	4	5	6	7	<b>Sept.</b>	..	..	1	2	3	4	5	6	7	8	9	10	11	12
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	15	16	17	18	19	20	21	22	23	24	25	26	27	28		14	15	16	17	18	19	20	21	22	23	24	25	26	27		11	12	13	14	15	16	17	18	19	20	21	22	23	24
	22	23	24	25	26	27	28	29	30	31	..	..	..	..		21	22	23	24	25	26	27	28	29	30	..	..	..	..		18	19	20	21	22	23	24	25	26	27	28	29	30	31
<b>March</b>	..	..	..	..	..	..	..	..	..	..	..	..	..	..	<b>July</b>	..	..	..	..	..	..	..	..	..	..	..	..	..	..	<b>Nov.</b>	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1	2	3	4	5	6	7	8	9	10	11	12	13	14		5	6	7	8	9	10	11	12	13	14	15	16	17	18		8	9	10	11	12	13	14	15	16	17	18	19	20	21
	8	9	10	11	12	13	14	15	16	17	18	19	20	21		12	13	14	15	16	17	18	19	20	21	22	23	24	25		15	16	17	18	19	20	21	22	23	24	25	26	27	28
	15	16	17	18	19	20	21	22	23	24	25	26	27	28		19	20	21	22	23	24	25	26	27	28	29	30	31	..		22	23	24	25	26	27	28	29	30	31	..	..	..	..
	22	23	24	25	26	27	28	29	30	31	..	..	..	..		26	27	28	29	30	31	..	..	..	..	..	..	..	..		29	30	31	..	..	..	..	..	..	..	..	..	..	..
<b>April</b>	..	..	..	..	..	..	..	..	..	..	..	..	..	..	<b>Aug.</b>	..	..	..	..	..	..	..	..	..	..	..	..	..	..	<b>Dec.</b>	..	..	..	..	..	..	..	..	..	..	..	..	..	..
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	19	20	21	22	23	24	25	26	27	28	29	30	31	..		16	17	18	19	20	21	22	23	24	25	26	27	28	29		20	21	22	23	24	25	26	27	28	29	30	31	..	
	26	27	28	29	30	..	..	..	..	..	..	..	..	..		23	24	25	26	27	28	29	..	..	..	..	..	..	..		27	28	29	30	31	..	..	..	..	..	..	..	..	..

# 1932

							SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	S
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# FACULTY OF THE COLLEGE OF PHARMACY

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HENRY V. ARNY, Ph.M., Ph.D.....	<i>Dean</i>
CURT P. WIMMER, A.M., Ph.M., Phar.D.....	<i>Associate Dean</i>
GEORGE C. DIEKMAN, Ph.G., M.D.....	<i>Secretary</i>

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GEORGE C. DIEKMAN, Ph.G., M.D.....	<i>Professor Emeritus of Pharmacy</i>
HENRY H. RUSBY, M.D., Ph.M., Sc.D.....	<i>Professor of Materia Medica</i>
HENRY V. ARNY, Ph.M., Ph.D.....	<i>Professor of Chemistry</i>
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HARRY TAUB, Ph.Ch., B.S., A.M.....	<i>Assistant Professor of Materia Medica</i>
FREDERICK D. LASCOFF, Ph.G., A.B., B.S.....	<i>Assistant Professor of Pharmacy in Charge of Commercial Pharmacy</i>
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WILLIAM MACSATA, Ph.Ch., B.S.....	<i>Assistant Professor of Chemistry</i>
ABRAHAM TAUB, Ph.Ch., B.S., A.M..	<i>Assistant Professor of Physics and Chemistry</i>
MAXWELL KARSHAN, B.S., A.M., Ph.D..	<i>Assistant Professor of Biological Chemistry</i>
ALEITA HOPPING, A.B., Ph.D.....	<i>Associate in Physiology</i>

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LESLIE JAYNE, Ph.Ch., B.S.....	<i>Instructor in Chemistry</i>
PHILIP KERKER, A.B.....	<i>Instructor in Materia Medica</i>

SAUL KAYE, Ph.G.....	<i>Instructor in Pharmacy</i>
FRANK POKORNY, Ph.Ch.....	<i>Instructor in Materia Medica</i>
JOSEPH E. ADAMS, Ph.Ch., B.S.....	<i>Instructor in Materia Medica</i>
WILLIAM KEENAN, Ph.G.....	<i>Instructor in Materia Medica</i>
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THEODORE FAILMEZGER, Ph.Ch.....	<i>Instructor in Chemistry</i>
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SAMUEL LIBERMAN, Ph.Ch., B.S.....	<i>Instructor in Chemistry</i>
VICTOR LEWITUS, Ph.G., B.S., A.M.....	<i>Instructor in Materia Medica</i>
RUDOLF HAUCK, Ph.Ch., B.S.....	<i>Instructor in Pharmacy</i>
HERMAN J. AMSTERDAM, Ph.G., A.B., A.M.....	<i>Instructor in Pharmacy</i>
CHARLES H. SOREN, Ph.G., B.S.....	<i>Instructor in Chemistry</i>
EDWARD ANZELMI, Ph.Ch.....	<i>Instructor in Chemistry</i>
MARGUERITE C. DIMLER, Ph.Ch., B.S.....	<i>Instructor in Chemistry</i>
DOMINICK FANELLI, Ph.Ch., B.S.....	<i>Instructor in Pharmacy</i>
HARRY FREDERICK WAGNER, Ph.Ch.....	<i>Instructor in Pharmacy</i>

## LECTURERS

ISIDORE NEUSTAEDTER, Phar.D., LL.B.....	<i>Lecturer in Pharmaceutical Jurisprudence</i>
GEORGE D. MCJIMSEY, A.M.....	<i>Lecturer in English and American Government</i>
ARTHUR H. INGENHUETT, A.M.....	<i>Lecturer in German</i>

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ADAM LEROY JONES, Ph.D., Litt.D.....	<i>Director of University Admissions</i>
CHARLES C. WILLIAMSON, Ph.D., Litt.D.....	<i>Director of Libraries</i>
ROGER HOWSON, M.A.....	<i>Librarian</i>
DAVID M. UPDIKE, M.E.....	<i>Superintendent of Buildings and Grounds</i>
CHARLES W. BALLARD, Ph.Ch., A.M., Ph.D.....	<i>Librarian of the College of Pharmacy</i>
EDWARD J. GRANT, A.B.....	<i>Registrar of the University</i>
CHARLES S. DANIELSON.....	<i>Bursar of the University</i>
HENRY LEE NORRIS, M.E.....	<i>Director of Works</i>
CLARENCE E. LOVEJOY, A.B.....	<i>Alumni Secretary</i>

## COLUMBIA UNIVERSITY

Columbia University was founded in 1754 as King's College by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws and Doctor of Law (Doctor Juris); the College of Physicians and Surgeons with courses leading to the degree of Doctor of Medicine; the School of Engineering, with courses leading to the Bachelor of Science degree, the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degree of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degrees of Bachelor of Literature and Master of Science; the School of Business, with courses leading to the degrees of Bachelor and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degrees of Bachelor of Science and Doctor of Dental Surgery; the School of Library Service, with courses leading to the degrees of Bachelor of Science and Master of Science; Seth Low Junior College offering two and three years of collegiate work in preparation for admission to professional schools or to more advanced work in liberal arts and sciences in Columbia University; the non-professional Graduate Faculties of Political Science, Philosophy, and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy.

In addition to these schools and faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; the College of Pharmacy of the City of New York, with courses leading to the degrees of Pharmaceutical Chemist, Bachelor of Science and Doctor of Pharmacy; St. Stephen's College, Annandale, New York, an undergraduate college for men with courses leading to the degree of Bachelor of Arts; and the Union Theological Seminary, whose faculty conducts certain University work leading to the degree of Master of Arts.

The University maintains three sessions during the year: The Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education and to take courses toward a diploma or an academic degree. Home Study courses are also offered to persons who are unable to take work in residence.

## ADMISSION

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma, is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standard of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the Announcement of each school will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

## WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar. Applications for the return of fees must be made in writing at the time of withdrawal.

The Dean or Director of the school or faculty concerned may, for reasons of weight, grant a leave of absence to a student in good standing.

## ANNOUNCEMENTS

The Announcements of each college or school, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

The Announcement of each school contains a schedule of fees and expenses for the courses in that school.

## LIBRARY

The Library of the University contains about 1,166,600 volumes, exclusive of unbound pamphlets. The various departments of instruction have also special libraries in connection with their lecture rooms and laboratories. The Avery

Architectural Library, the law library, the Ella Weed Library of Barnard College, Teachers College library, and the libraries of the College of Physicians and Surgeons, the School of Dental and Oral Surgery, and the College of Pharmacy, are all available to students of the University.

#### RESIDENCE HALLS

There are four Residence Halls for men on South Field: Furnald with 282 rooms, Hartley with 300, John Jay with 476 and restaurants adequate for all men students, and Livingston with 300 rooms. Johnson Hall, on East Field, with accommodations of room and board for 360 students in the graduate and professional schools is a Residence Hall for women.

All the University Residence Halls, for both men and women, are under the supervision of advisory committees appointed by the President, consisting of University officers and assisted by committees made up of residents in the Halls.

Copies of Residence Halls Announcements giving floor plans and dormitory regulations together with application blanks will be furnished on request by the Secretary of the University, 213 Library.

#### INTERNATIONAL HOUSE

International House, 500 Riverside Drive, the home of the Inter-Collegiate Cosmopolitan Club, is maintained for men and women students from foreign lands and a limited number of American students. It accommodates 175 women and 325 men. It contains attractive restaurants and social rooms. Fees for the academic year range from \$185 to \$325. Inquiries should be addressed to the Committee on Admissions, International House, 500 Riverside Drive.

#### THE RESIDENCE BUREAU

Columbia University maintains a Residence Bureau to protect the students' interests and to assist students in finding the best accommodations obtainable in the University neighborhood. There is no charge made for this service. The Bureau will furnish upon request addresses of rooms which have been inspected. The University is in no way responsible for any private lodging house. Students desiring information regarding rooms outside of University Halls should address the Residence Bureau, Room M, Earl Hall, Columbia University.

#### DINING FACILITIES

The University maintains a dining room for women students in Johnson Hall and a dining room and a grillroom for men students in John Jay Hall. In addition, the University maintains the following dining rooms (cafeteria service): the Commons (men and women), University Hall; Barnard Hall Lunch Room (women), Barnard Hall; Teachers College Cafeteria (men and women), Grace Dodge Hall, 121st Street. All these dining rooms are under expert supervision and furnish wholesome food at moderate rates.

The Columbia University Press Bookstore, located in the basement of Journalism, conducts a soda fountain where light luncheons are served.

## GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the University Medical Officer. On the basis of this examination, advice is given as to the kind and amount of exercise best adapted to his needs. Barnard Hall, of Barnard College, and Thompson Hall, of Teachers College, are thoroughly equipped with physical training facilities for women students.

## EARL HALL

Earl Hall was given to Columbia University by the late William Earl Dodge for the religious and social activities of the students. On the main floor, reached by the campus entrance, are the offices of the Director of Earl Hall (Men's Residence Halls Office); the Residence Bureau; the Secretary of Appointments; and the Meeting Room. On the upper floor are the offices of the Chaplain of the University and his staff, and also an auditorium seating 400 people which is available for student receptions and dances. The lower floor, entrance from Broadway, is occupied by the offices of the University Medical Officer.

## MEDICAL SERVICE

The University Medical Officer has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. The University Medical Officer, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists and nursing care, will receive such information upon applying at the office of the University Medical Officer.



# THE COLLEGE OF PHARMACY

## IMPORTANT ANNOUNCEMENT

### STATE BOARD REQUIREMENTS

It has been agreed among all the important state boards of pharmacy in the United States, with the exception of New York, that the degree of Graduate in Pharmacy, awarded for a course of less than four years will not be accepted from graduates matriculating after the year 1932. In certain of the states there is an additional demand that the college instruction be spread over five days of the week. It follows that students matriculating in the pharmacy schools of this state must pursue some other course than the Ph.G. course of three years, if they wish their diplomas to be recognized in other states. Our University Course of four years leading to the degree of Bachelor of Science in Pharmacy (see page 17) is more than equivalent to the four-year course required by other states, as stated above, our course provides 1056 hours annually of instruction for four years of 32 weeks each, the work occupying five days of each week.

### GENERAL STATEMENT

The one hundred and first annual session of the College of Pharmacy, open to both men and women, will begin on Monday, September 22, 1930.

In May, 1930, our first graduates of the reorganized and extended three-year College Course received their diplomas. In the past, our two-year College Course, while giving thorough instruction in pharmacy, was not considered as of sufficient scope to be entitled to University standing, and its diplomas were issued by the College, independently. With the extension of the work to three years, based on entrance qualifications equivalent to those for admission to Columbia College, this deficiency is eliminated, and the diplomas of this course will hereafter bear the University name.

### THE COLLEGE BUILDING

The location of the College is at one of the most readily accessible points in the city. Within two blocks are stations of the elevated and underground railroads, and the Broadway, Columbus, and Amsterdam Avenue lines connect with nearly all surface lines in the city. The central buildings of the University are reached within fifteen minutes from the door of the College.

The College building was erected in 1894, after a study of the principal buildings of the kind in this country and abroad. So great has been the increase in the applications for admission that it was found necessary in 1923 to provide greater accommodations in the form of an additional connecting building.

In its planning, two principal objects were kept in view: first, provision for a large increase in the membership of the first and second-year classes; second, greatly increased and improved facilities for the work of the higher classes.

In connection with the latter, extensive provision has been made for research work, by both Faculty and special students. Our library has also been greatly improved, the entire lower floor of the new building having been reserved for its accommodation.

#### THE LIBRARY

The library is in charge, during College hours, of a trained librarian, who is ready to offer any assistance desired by readers. It contains the important works of reference required in the different departments of instruction, and for the various branches of science taught in the College of Pharmacy. It covers, indeed, a very broad field in all departments of chemistry, botany, and pharmacy.

Should the resources of the College be insufficient for some special purpose, the student has recourse to such great library storehouses as the general Library of Columbia University, on Morningside Heights, libraries of the College of Physicians and Surgeons, School of Dental and Oral Surgery, the New York Academy of Medicine, the New York Botanical Garden, and others, and he will also be able, by special arrangement, to borrow from the great library of the Surgeon-General's office at Washington.

The library contains an extensive series of periodicals on chemistry, pharmacy, and botany, with their allied branches. All important journals relating to the work of the College are regularly received.

During regular College hours the library is accessible not only to officers and students of the College, but also to the pharmacists of the city. Under certain regulations, books may be borrowed for outside use, but for obvious reasons important works of reference and unbound periodicals are not loaned. Library copies of the textbooks in use by the College may not be removed from the library.

#### INFORMATION BUREAU

The Information Bureau conducted by the library staff is designed to furnish pharmacists with data required in emergencies and not available in the library of the average drug store. During the past years of operation the Bureau has met with gratifying success, and it is steadily growing in popularity.

The following paragraphs explain the methods employed in conducting the service.

1. Telephone inquiries will be answered without charge. Residents of Greater New York or vicinity wishing to inquire about some pharmaceutical problem will call up the Information Bureau, Trafalgar 1733, and will receive information immediately if it is accessible.

2. Non-residents will have their problems answered by mail if they enclose a self-addressed stamped envelope.

3. Problems requiring extended research will be handled for a fee as moderate as consistent with high-grade service.

4. Translations of articles from foreign languages, either in full or in abstract, as well as transcripts of papers appearing in English or American pharmaceutical, chemical, or botanical periodicals will be prepared for those desiring to pay for such service.

5. As in the past, all visitors to the library, desiring to do their own research work, will be given courteous attention.

#### EMPLOYMENT FOR STUDENTS

The Registrar, so far as possible, assists students to secure such positions, in and about the city, as will not prevent them from regularly attending the College exercises.

Any student wishing to secure employment should, upon entering the College, communicate with the Registrar.

Within easy reach of the College are some three thousand pharmacies, where students who have had some experience in pharmacy may obtain employment with salary sufficient to pay the whole or a large part of their expenses while attending College.

#### APPLICATION FOR ADMISSION

Every candidate for admission to the College of Pharmacy is required to file with the Registrar of the College a personal application and a transcript of his high school record, blank forms for which can be had upon application. He is also required to file an approval of his application for a pharmacy student qualifying certificate *before he can be accepted*, and he must secure the apprentice license before his matriculation can be considered complete.

#### NEW YORK STATE QUALIFYING CERTIFICATE

To be entitled to a pharmacy student qualifying certificate, the applicant must be at least seventeen years of age, and must have been graduated from an accredited four-year high school course, or have covered courses acceptable to the Department of Education as a full equivalent thereof. A high school or other secondary school course of study will not be considered acceptable unless the applicant has received the school diploma, and unless his or her record includes

English, four years

Science, two years.

Mathematics, two years.

Foreign language, two years.

History, one year.

Physiology, one-half year (unless the two years of science include biology or general science).

Civics, one-half year.

Sufficient electives to make up a full four-year course aggregating 15 units.

The fulfillment of these requirements must be officially guaranteed by a qualifying certificate issued by the New York State Department of Education. If the applicant is entitled to receive the certificate, he will be so notified by letter; which letter should be presented to the Registrar of the College of Pharmacy. Blank forms for making application for the certificate may be secured either from the Registrar's office or from the Department of Education at Albany.

## APPRENTICE LICENSE

The apprentice license should be applied for when the candidate commences his experience in a pharmacy or drug store. Those who have had no experience before entering the pharmacy school, or whose experience has been in a drug store or pharmacy outside of New York State, will make application for their licenses through the school during the first week of the course, the Registrar acting as "preceptor." Blank forms for making application for the apprentice license may be secured either from the Registrar's office or from the Board of Pharmacy at Albany, N. Y.

## HEALTH CERTIFICATE

All applicants for admission to any of the courses given must present an acceptable certificate of health from the candidate's family physician or from the University Medical Officer. In case of doubt an examination by the University Medical Officer will be required. Appropriate blanks are furnished by the Registrar of the College.

## COURSES OFFERED

Two regular courses of study are offered, known respectively as the College Course and the University Course, and three evening courses in the Departments of Materia, Medica, Pharmacy, and Chemistry.

## THE COLLEGE COURSE

This course now comprises three full years of professional work, and is designed to fit the graduate for meeting the educational requirements of the Boards of Pharmacy of most of the states. The fundamental idea of this increase in time is generally accepted as being that of improving the quality of the work done, rather than of providing a large amount of additional work, this improvement applying particularly to the practical features of the course. The precise object of a course leading to the degree of Graduate in Pharmacy being to prepare such graduates for meeting the conditions of service in a retail pharmacy, the greater portion of the increased time has been assigned to the Department of Pharmacy, and to those features of the work of the other departments which are directly contributory thereto. After a careful study of the requirements, we have concluded that the time officially assigned for this course is insufficient, and we have added 128 hours for laboratory work in commercial and dispensing pharmacy.

The accomplishment of the better training that is sought necessarily calls for the introduction of new topics in the existing syllabi, and we call special attention to the following items.

We have always regarded a course in materia medica as being incomplete that did not include instruction in the apparatus, equipment and appliances included under the title of sick-room supplies, but no opportunity has heretofore offered for practical instruction of this kind. In our reorganized course, 32 hours are devoted to explaining and illustrating the nature and use of articles of this class. Although technically pertaining to the subject of materia medica, this instruction forms an important part of the students' preparation in commercial pharmacy.

Another qualification that we deem requisite for every well-equipped pharma-

cist is a general knowledge of the nature and effects of bacteria in their relations with pharmaceutical practice. While we do not regard the conduct of a bacteriological laboratory as pertaining to the business of the ordinary pharmacist, we regard as necessary some knowledge of the principles of bacterial decomposition, sterilization and immunization, and 64 hours have been assigned for instruction in those subjects. While this subject, relating to the activities of plants, pertains technically to botany, it also has close relations with practical pharmacy.

#### THE UNIVERSITY COURSE

The Department of Health of the City of New York has placed the Bachelor of Science in Pharmacy, graduating from this course, in the position of being eligible to conduct a bacteriological laboratory or to fill similar positions.

The attention of prospective students is directed to the increasing call for graduates of advanced courses, to fill other professional positions. The general application of Federal, state, and municipal food and drug laws is creating a demand for thoroughly trained pharmaceutical inspectors and analysts. The obligations thus imposed upon manufacturers and merchants must result, and are doing so, in compelling them to employ scientifically trained assistants for responsible services which formerly were often left to incompetent and irresponsible employees. For this field of service the ordinary graduate in pharmacy is wholly unqualified.

To meet these higher requirements, three-, four- and six-year courses of study, leading respectively to the degrees of Pharmaceutical Chemist (Ph.Ch.), Bachelor of Science in Pharmacy (B.S. in Phar.) and Doctor of Pharmacy have been established.

In response to inquiries frequently received as to the advantages of the University Course over the College Course, the following synopsis has been prepared:

1. To members of the University Class only are open certain of the University privileges.
2. The University Class attends on five days weekly, and the course includes regular work in academic subjects, conducted by special instructors supplied by the Dean of the Faculty of Columbia College, this work receiving full credit from the University toward the baccalaureate degree.
3. For the University Class, the College provides a thorough course of laboratory instruction in advanced chemistry, pharmacy, and physics and special courses in microscopy and bacteriology, consisting of both theoretical and laboratory instruction.
4. Our graduate course, leading to the degree of Doctor of Pharmacy, is open only to graduates of the four-year University Course.
5. Not only are the degrees of Pharmaceutical Chemist and Bachelor of Science recognized as of higher rank than that of Graduate in Pharmacy, but the three- and four-year courses for which they are awarded qualify its recipients for many lines of pharmaceutical work that are not open to graduates from the College Course.

#### GRADUATE COURSE

This course, leading to the degree of Doctor of Pharmacy, is open to graduates with the baccalaureate degree, conferred by this college or by other schools

of pharmacy maintaining equivalent courses of study. The course consists of two full years of study in residence. Thirty hours weekly are occupied in research work in the department representing the major subjects, and three hours weekly in each of the other two departments. For this session, not more than two students will be matriculated in each of the three departments.

ENTRANCE REQUIREMENTS

COLLEGE COURSE

To be eligible for admission, the candidate must be at least seventeen years of age, and must meet the requirements for the pharmacy student qualifying certificate, as outlined on page 15.

THE UNIVERSITY COURSES

These are courses of full academic years (September to June) leading to graduation with the other departments of the University, and to the degree of Pharmaceutical Chemist, conferred by the University, at the end of the third year, and to that of Bachelor of Science in Pharmacy at the end of the fourth. It is to be noted here that for the session of 1930-1931 a limited number of fourth-year students can be accommodated.

The requirements for admission to this course are the same as those for Columbia College. The student must be seventeen years of age, must have graduated from a high school within or outside of the state of New York that is accredited by the Education Department of this state, and must present a pharmacy student qualifying certificate from the Education Department of this state, as outlined on page 15.

Applications for admission to the 1930-1931 session of the University Course should be filed on or before September 11, 1930.

Under this course, two programs are offered, one leading to the degree of Pharmaceutical Chemist, and one to the degree of Bachelor of Science in Pharmacy.

The evidence of adequate preparation for admission to the University Course in the subjects required on the part of candidates who have not completed a year of college work, includes both examination and school records.

The subjects which candidates may offer in fulfillment of these requirements are outlined below. (A "unit" implies the study of a subject for a time equivalent to five hours weekly for one year.)

PRESCRIBED SUBJECTS

All candidates must offer:

ENGLISH	{	1 (grammar and composition) . . . . .	2 units
		2 (literature) . . . . .	1 unit
MATHEMATICS	{	ai (algebra to quadratics) . . . . .	1 unit
		aii (quadratics and beyond). . . . .	1 unit
		c (plane geometry) . . . . .	1 unit

EITHER

(1) Latin<sup>1</sup> . . . . . 4 units

<sup>1</sup> Greek, 3 units, may be substituted for Latin, in which case 6 elective units must be offered.

OR

(2)	}	Latin, Greek, French, German, Spanish or Italian . . . . .	3	} 5 units
		Physics or chemistry . . . . .	1	
		History . . . . .	1	

ELECTIVE SUBJECTS, to make up 15 units . . . . . 4 or 5 units

ELECTIVE SUBJECTS

*Group I*

The candidate may offer any of the following subjects not included among his prescribed subjects, without other restriction than that to offer an advanced subject will involve offering, either at the same time or earlier, the corresponding elementary subject.

Biology—See Zoölogy	
The English Bible . . . . .	1 unit
Elementary Greek . . . . .	2 or 3 units
Elementary history . . . . .	1 or 2 units
Drawing (freehand or mechanical) . . . . .	1 unit
Music . . . . .	1 unit
Intermediate French . . . . .	1 unit
Intermediate German . . . . .	1 unit
Intermediate Italian . . . . .	1 unit
Intermediate Spanish . . . . .	1 unit
Advanced French . . . . .	1 unit
Advanced German . . . . .	1 unit
Social science . . . . .	1 unit
Advanced Spanish . . . . .	1 unit
Advanced mathematics (College) . . . . .	½, 1 or 1½ units
And in the case of candidates not offering 4 units in Latin:	
Elementary Latin . . . . .	2 or 3 units

*Group II*

The candidate may offer not more than 4 units in all from the four subjects following:

Elementary French . . . . .	2 units
Elementary German . . . . .	2 units
Elementary Italian . . . . .	2 units
Elementary Spanish . . . . .	2 units

*Group III*

The candidate may offer not more than 3 units in all from the six subjects following:

Botany . . . . .	1 unit
Chemistry . . . . .	1 unit
Physics . . . . .	1 unit
Physiography . . . . .	1 unit
Shopwork . . . . .	1 unit
Zoölogy . . . . .	1 unit

## NEW METHOD

Under the "new method," candidates whose school and character records are entirely satisfactory, may meet the examination requirements by means of a psychological test. The school course must include three units in English, three in mathematics (elementary and intermediate algebra and plane geometry), and at least three units in a foreign language, ancient or modern. It must have been concerned primarily with languages, science, mathematics, and history.

## OLD METHOD

Under the "old method," the examination requirements for admission may be satisfied by any one of the three following means, or any approved combination thereof.

1. By the examinations of the College Entrance Board, held in June of each year at Columbia University and at about 150 other educational centers in the United States and abroad.

2. By the examinations conducted at Columbia University in September of each year, by the Director of University Admissions.

(The examination grades in connection with the above two methods are interpreted in the light of the record which students have made in school.)

3. By the examinations given in the high schools by the Education Department of the state of New York to students who have satisfactorily completed certain courses in these high schools. In these examinations, seventy-five per cent will ordinarily be regarded as the lowest passing mark.

For candidates qualifying for admission on the basis of examinations before Columbia University or the College Entrance Board, two methods are open:

a. *Examination in Fifteen Units.* A candidate may offer examinations in fifteen units as evidence of his preparation in secondary school subjects.

b. *Four-Examination Plan.* A candidate who has completed a satisfactory secondary school course with a high degree of proficiency may, by special permission, satisfy the examination requirement by means of "comprehensive examinations" in not less than four subjects including those prescribed for admission.

Candidates entering by the old method are required to take the psychological examination for purposes of record only.

Those contemplating the September, 1930 examinations, must file their applications with the Secretary of Columbia University on or before September 8, 1930. Those who contemplate taking the June, 1931 examinations, must file their applications with the Secretary of the College Entrance Board at 431 West 117th Street, New York, N. Y., early in May. Blank forms of application for either series of examinations may be secured from the respective secretaries.

Every candidate for admission to the University Course should secure a copy of the current Bulletin on Entrance Examinations and Admission which may be had upon application to the Secretary of the University.



## ADMISSION TO ADVANCED STANDING

Candidates may be admitted to advanced standing only upon a satisfactory record from their school of previous residence. Provided they are eligible for the pharmacy student qualifying certificate required by the New York State Department of Education, candidates who have completed, without condition, corresponding courses in a pharmacy school registered by the State Education Department, are eligible for admission to the second, third, or fourth years, respectively.

## FEES

The fees to be paid by students are subject to change at any time in the discretion of the Trustees. The following schedule is in force for the 1930-1931 session or for students accepted in any of the regular courses leading to degrees.

	<i>College Course</i>	<i>University Course</i>
<i>First, Second, and Third Years:</i>		
Registration fee . . . . .	\$5.00	\$5.00
Student activities . . . . .	10.00	10.00
Breakage deposit . . . . .	10.00	10.00
Examination fee . . . . .	10.00	10.00
Tuition . . . . .	250.00	300.00
Laboratory fees . . . . .	45.00	60.00
<i>Fourth Year:</i>		
Registration fee . . . . .		5.00
Breakage deposit . . . . .		10.00
Examination fee . . . . .		15.00
Tuition . . . . .		300.00
Laboratory fees . . . . .		60.00
<i>Fifth and Sixth Years, Graduate Course</i>		
Registration fee . . . . .		5.00
Breakage deposit . . . . .		25.00
Examination fee . . . . .		20.00
Tuition . . . . .		350.00
Laboratory fees . . . . .		60.00

*Special Courses.* Students desiring to pursue individual courses as special students will be required to pay at the rate of \$7.50 per point.

*Summer Courses.* The fee for any laboratory course is \$25 for first-, second- and third-year work in the College Course. In the University Course, the fee is \$25 for first- and second-year work and \$50 for third- and fourth-year work.

*Evening Courses.* The fees for the various evening courses will be found among the descriptions of these courses, beginning on page 46.

*Books and Supplies.* It is estimated that an expenditure of \$50 will cover the cost of the textbooks and necessary apparatus required for the entire College Course, and of \$75 for the entire University Course for the Ph.Ch. degree. The heaviest expenditure in all cases will be in the first year; many of the required reference works being used also in subsequent years.

## METHODS OF PAYMENT

*Regular Courses*

One of three methods for the payment of the tuition fee for the year may be elected by the candidate, as indicated below. In this connection, it is to be noted that all are required to pay the registration fee, the breakage deposit, the student activities fee and the first installment of the tuition fee at the time of registration. The dates for registration in the various classes will be found in the academic calendar on page 71.

A. Pay in full at the time of registration.

B. Pay one half of the tuition fee at the time of registration, and the balance on or before January 5, 1931. Under this arrangement, an additional \$3 must be added to the first installment.

C. Pay one third of the tuition fee at the time of registration; one third on or before December 1, 1930, and the balance on or before February 9, 1931. Under this arrangement, an additional \$5.00 must be added to the first installment.

A student, electing plan B or C makes himself liable to suspension from further attendance if he fails to meet the payments when due.

Second-, third- and fourth-year students, who register after the last day set for their registration (see Academic Calendar) are required to pay an additional fee of \$5.00 for late registration.

*Examination Fees.* Dates upon which fees for examination in course are required will be found in the Academic Calendar.

The rate for reexamination is on the basis of \$5 for each subject in September and \$10 for the entire series in the spring.

*Rebates.* The registration and student activities fees shall not be subject to rebate.

In the case of the total withdrawal of a student from the College, a partial return of the tuition fee may be authorized by the Trustees, but in no case shall more than two thirds of the total charge for that year be returned.

*Special, Summer, and Evening Courses.* Students registering in any of these courses are required to pay the tuition and other fees *in advance*.

## METHOD OF INSTRUCTION

The instruction of each class during the first and second years of the College Courses occupies three days of the week, the alternate days being free for practical experience in the pharmacy. This arrangement provides a source of income, which is a necessity for many of the students of the College. During the third year, an additional half-day must be devoted to work in the pharmacy laboratory. All students who can do so are urged to devote their third year wholly to College work.

For the purpose of more fully elucidating the subjects presented in the lectures and laboratories and of familiarizing the students therewith, and as a test of attention and progress, provision is made for a complete series of recitations or quizzes by a corps of qualified instructors. The order of topics and the manner of their treatment at these recitations follow closely the courses of instruction

given by the professors in the respective departments. In order that all the members of the class may be drilled as often and as thoroughly as possible, the classes are divided into sections, the instruction of each section being identical, but conducted at different hours.

#### REGULATIONS OF THE BOARD OF TRUSTEES

The rules and regulations stated in this Announcement and those posted on the bulletin boards, signed by the Chairman of an authorized committee, or by the Dean, will govern all students of this College until a new Announcement is issued.

#### AUTHORITY OF THE DEAN

The Dean is the executive officer of the Faculty. It is his duty, under the direction of the President, to enforce the rules of the Faculty and of the Board of Trustees and to administer discipline in the case of their violation.

#### DEAN'S OFFICE HOURS

Ordinarily the Dean will be found in his office at the hours given below. As he is frequently called out of the city, it is advisable to make important appointments by telephone.

##### *During College Term*

Tuesday at 2 p. m.

Wednesday, to Saturday (inclusive) at 10 a. m.

##### *During Summer Vacation*

Tuesday, Thursday, and Saturday at 10 a. m.

#### REQUIREMENTS FOR ALL REGULAR STUDENTS

##### *Attendance*

Students are particularly requested to be in attendance at the commencement of the course, in order to obtain full benefit from the lectures. No student will be admitted more than two weeks after the opening of the term, and no member of the third- and fourth-year classes will be admitted later than one week after the opening, except by special permission of the Faculty.

Every student must attend during ninety per cent of the hours of instruction in each year, and during eighty per cent of those of each exercise. The lectures and recitations in a subject constitute one "exercise." For being late twice at daily opening the student will be charged with one absence. For failure to comply with this condition, the student will forfeit the privilege of presenting himself for examination.

Computation of attendance records will be based upon the total number of hours assigned a given course (page 28) during the academic year.

##### *Advancement in Classes*

Advancement from one class to the next requires that the student successfully pass an examination in all the subjects taught during the preceding year, the

passing mark being seventy-five per cent, although the Faculty may admit a student to the next class conditioned in a single subject. It is to be particularly noted that in deciding upon the qualifications of candidates, their term's work and their character as students will be given due consideration.

Those students who fail to pass these examinations—but *not those* who have failed, without excuse, to present themselves thereat—will be allowed to undergo a single supplementary examination to be held as announced on page 71, provided, however, that they did not fail in a majority of their subjects. Students failing in a majority of their subjects will be required to repeat their entire course of that year, provided, however, that such students may be refused readmission if, in the judgment of the Faculty, they are not qualified to be students of this college. A student who fails in a laboratory course must repeat such course successfully before being advanced to the higher class. This work must be done during the summer, except in special cases.

By a regulation of the State Education Department, students failing in more than one subject must make good the deficiency at the school where they so failed. Applicants for the supplementary examination must notify the Registrar on or before September 1, 1930.

Candidates for admission to advanced standing must either pass examinations in all the subjects of the preceding year or must produce evidence of having passed successfully examinations equal thereto.

#### REQUIREMENTS FOR GRADUATION

Every person upon whom a degree is conferred by the College or the University must be of good moral character, and must have complied with all requirements for graduation.

Those who fail to appear for examination (after having handed in their names with the examination fee), or who do not pass satisfactorily, will be allowed to present themselves at the following spring examinations on paying an additional fee of \$10 and complying with all other requirements.

Any student who shall have failed three times in three or more subjects at the final examinations for graduation, shall be required to repeat the entire work of the final year before being again admitted to examination. Should the student again fail at the final examination and at the following supplementary examination, he will not be permitted to continue as a student, or to be examined again. Any student failing three times in one or two subjects, shall be required to repeat the entire work of the final year in such subject or subjects before being again admitted to examination.

All students must obtain a rating of seventy-five per cent or higher in every department in which they may be examined. Any student failing in one or more departments, but not in laboratory courses, may present himself for re-examination therein at the supplementary examination held in September, or at the next regular spring examination. If successful, he will be graduated without reexamination in the other departments. Failure in a laboratory course will necessitate the repeating of that course, which repetition must occur during the summer vacation, except in special cases. See schedule on page 46.

Students of the third-year University Class failing in a laboratory course of a single department may be permitted to remove this failure during the Summer Laboratory Session. Students of this class failing in the laboratory courses of more than one department will be required to repeat in full those courses in which they fail, during the next regular session.

### PRIZES AND SCHOLARSHIPS

The College reserves the right to withhold the award of any scholarship or prize, if in its opinion, no candidate has exhibited qualifications justifying the award.

**HONOR ROLL.** The College Classes and the University Classes will have separate and distinct honor rolls.

*For the College Classes*, the roll is limited to thirteen candidates, provided all have secured a general average of 85 per cent or over, and the mean of the ratings secured in the three departments of Pharmacy, Materia Medica, and Chemistry will be the basis of computation for the general average.

*For the University Classes*, the roll is limited to three candidates, provided all have secured a general average of 85 per cent or over, and the mean of the ratings secured in the four departments of Pharmacy, Materia Medica, Chemistry, and the Cultural Courses will be the basis of computation for the general average.

**TRUSTEES' PRIZES.** The Board of Trustees offers annually, to be presented at Commencement, three prizes of \$100 each, for the highest rating secured in competitive examination in the three departments of Chemistry, Pharmacy, and Materia Medica. These competitive examinations are open to those members of the graduating class who have attained positions on the honor roll of the College Course. (If the number of these honor students be less than thirteen, a sufficient number of graduates having the next highest averages to make that number will be permitted to compete for these prizes.) A certificate, stating the honor for which the prize has been awarded, is also presented to each of the recipients,

**ALUMNI ASSOCIATION PRIZES.** The Alumni Fund of the College of Pharmacy provides annually for a gold, a silver, and a bronze medal to be presented at Commencement to the three students having respectively attained the first, second, and third highest standings in all branches taught during the third year of the College Course.

This fund also provides for five additional prizes awarded annually on Alumni Day to members of the first- and second-year classes of the College Course, as follows: *Torsion Balance*, awarded to that second-year student who has secured the highest standing during the work of the two years; a copy of *The United States Dispensatory* to that student who has secured the highest standing during the work of the second year; a copy of Rusby, Bliss, and Ballard, *Properties of Drugs* awarded to that student securing the second highest standing in the work of the second year; a copy of Arny's *Principles of Pharmacy* to that student who has secured the highest standing in the work of the first year, and a copy of Sadtler, Coblentz, and Hostmann's *Pharmaceutical Chemistry* to that student who has secured the second highest standing in the work of the first year.

In the event that the winner of the *Torsion Balance* has the highest record for

the second year, then *The United States Dispensatory* and the *Materia Medica* will be awarded respectively to the second and third member of the honor roll.

**MAX J. BREITENBACH PRIZE.** A cash prize of \$200, accompanied by a certificate, offered annually for the highest proficiency in the junior (third year) University Class. This prize is provided for in perpetuity from the interest of funds bequeathed to the College by the late Max J. Breitenbach, for many years a devoted Trustee.

**KAPPA PSI PRIZE.** The Gamma Chapter of the Kappa Psi Fraternity offers annually a gold medal to be awarded to that Pharmaceutical Chemist not receiving either the Breitenbach prize or the Seabury Scholarship who attains the highest standing throughout the three years of the course.

**LILLIAN LEITERMAN PRIZE.** A gold medal, offered annually by Miss Lillian Leiterman (1911), to that woman member of the graduating class who has maintained the highest standing throughout the entire three years of the College Course.

**J. LEON LASCOFF PRIZES.** Life membership in the American Pharmaceutical Association and in a state pharmaceutical association, offered annually by Trustee J. Leon Lascoff to the two members of the graduating class in the College Course who have been prominent in student activities, who have maintained a high degree of general scholarship, and who are adjudged by the Faculty to be worthy of such awards.

**TRUSTEES' SCHOLARSHIPS.** To the four students who maintain the highest proficiency in their respective classes during the first and second years of the College and University Courses, the Board of Trustees of the College annually awards scholarships for one year's tuition, to be applied to the following session of their respective courses.

**GEORGE J. SEABURY SCHOLARSHIP.** This scholarship has been founded by Dr. Henry C. Lovis, in memory of his uncle, Mr. George J. Seabury, for many years a member and patron of the College. It provides for the tuition, during the senior (fourth) year of the University Course, of that member of this class who has maintained the highest standing during the three years, provided, however, that such student will not receive both this scholarship and the Max J. Breitenbach prize.

**ISAAC PLAUT FELLOWSHIP.** This fellowship for the encouragement of graduate study and original research was founded by Mr. Albert Plaut, in memory of his father, Isaac Plaut.

Candidates for this fellowship must have secured the degree of B.S. in Pharmacy at this college, and must also possess credit for a year's study of a foreign language, equivalent to that of the first year at Columbia College.

It provides for a year of study at a European school or university by that Bachelor of Science in Pharmacy of this college who will have shown during his full course of study here the greatest taste and aptitude for original investigation. Should no member of a class be deemed worthy of the award, it will be withheld.

The fellow will be appointed by the Council of the University upon the nomination of the Trustees of the College of Pharmacy. He will attend a

foreign institution to be selected by himself and approved by the Faculty of the College of Pharmacy, and will pursue a course of study approved by the Faculty. At the close of his incumbency he will present to the Faculty a written report of his work.

The fellowship payment will be made in three equal installments, one on June 15, one on November 1, and one on March 1, provided that the fellow continues faithfully to pursue the work undertaken. In case of failure so to do, he will forfeit all further privileges and emoluments conferred upon him by his appointment to the fellowship, and the Trustees of the College of Pharmacy may declare the fellowship vacant.

*Note.* Competition for the Kappa Psi Prize, the Seabury Scholarship and the Plaut Fellowship is open only to those students who take their entire course at this college.

**LOUIS SPENCER LEVY RESEARCH SCHOLARSHIP.** This scholarship, established in 1928 for a period of two years by Mr. Louis Spencer Levy, will, through his continued generosity, be available for the two years beginning with the session of 1930-1931. It affords free tuition for two years to that B.S. or Ph.Ch. who is deemed qualified by the Faculty to do research work and who will devote the greater portion of his time to investigations of the effect and usefulness of ultra-violet radiations in the field of essential oils and perfume materials, this work to be done under the direction of the head of the Department of Pharmacy.

**E. R. SQUIBB PRIZE.** This is an annual cash prize of \$100, offered by Messrs. E. R. Squibb & Sons, in memory of Dr. E. R. Squibb. It is awarded to that Graduate in Pharmacy who exhibits the greatest proficiency in analytical chemistry during his third year, as determined by the laboratory records.

**LOUIS DOHME PRIZE.** This is an annual cash prize of \$100, founded by Mr. Ernest Stauffen, in memory of Mr. Louis Dohme. It is awarded to that Graduate in Pharmacy who exhibits the best practical knowledge of the drugs of the United States Pharmacopœia and National Formulary, as determined by the laboratory records and examinations.

**JOSEPH WEINSTEIN PRIZE.** This prize consists of a compound microscope and is established by the New York Retail Druggists' Association, in memory of Dr. Joseph Weinstein. It is awarded to that Graduate in Pharmacy who has exhibited the greatest proficiency in analytical chemistry during the three years, as determined by the laboratory records, and who has not secured any other prize.

**ITALIAN PHARMACEUTICAL ASSOCIATION PRIZE.** This Association offers annually a gold medal to that Graduate in Pharmacy who has obtained the highest general average in practical laboratory work during the third year.

**LEHN and FINK PRIZE.** This prize consists of a gold medal, offered by Messrs. Lehn and Fink, of New York City, for the Graduate in Pharmacy attaining the highest standing at the examinations in pharmacy.

**WESTCHESTER COUNTY PHARMACEUTICAL ASSOCIATION PRIZE.** This Association offers annually a gold medal to that member of the graduating class who has attained the highest general average in the practical laboratory work of the Department of Pharmacy during the three years of the College Course.

GERMAN APOTHECARY'S ASSOCIATION PRIZE. In commemoration of its foundation in the year 1851, the German Apothecary's Association offers, annually, a gold medal to be awarded to that member of the graduating class who has exhibited during the final year of the College Course the greatest proficiency in the compounding of prescriptions.

OLSHANSKY MEMORIAL MEDAL. This is a gold medal, founded by the students of this college in attendance upon the session of 1923-1924, in memory of their beloved instructor, Jacob Calman Olshansky, whose death occurred during that academic year. This medal is to be awarded annually to that student who has attained the highest average in the final year of the College Course in the subject of dispensing pharmacy.

DIEKMAN PRIZE. This prize was founded in 1930 by the Dante Circle, in honor of Dr. George C. Diekman, Professor Emeritus of Pharmacy. It consists of a gold charm, and is awarded to that member of the graduating class who has attained the highest average in the courses in theoretical pharmacy throughout the three years of the College Course.

NEW YORK STATE PHARMACEUTICAL ASSOCIATION PRIZE. A year's membership offered by the Association to a member of the Honor Roll not winning any other prize.

## SYNOPSIS OF STUDIES FOR THE SESSION OF 1930-1931

### COLLEGE COURSE

#### First Year

		Class Hours	Laboratory Hours	Points
<i>Chm.</i> 1-2	General physics	2	0	4
<i>Chm.</i> 3-4	Inorganic chemistry	3 ½	0	7
<i>Chm.</i> 5-6	Analytical chemistry (qualitative)	½	3	4
<i>MM</i> 1-2	Botany	2	0	4
<i>MM</i> 3-4	Botany laboratory	1	4	6
<i>MM</i> 5-6	Posology	1	0	2
<i>Phr.</i> 1-2	Theory of pharmacy	3	0	6
<i>Phr.</i> 3-4	Manufacturing pharmacy	1	3	5

#### Second Year

<i>Chm.</i> 51-52	General physics	1	0	2
<i>Chm.</i> 55-56	Inorganic chemistry	3	0	6
<i>Chm.</i> 59-60	Analytical chemistry (acidic ions and volumetric)	0	3	3
<i>MM</i> 53-54	Pharmacognosy	0	3	3
<i>MM</i> 57-58	Human physiology and hygiene	2	0	4
<i>MM</i> 59-60	Microbiology	1	1	3
<i>Phr.</i> 51-52	Theory of pharmacy	1 ½	0	3
<i>Phr.</i> 53-54	Pharmaceutical Latin	1 ½	0	3
<i>Phr.</i> 55-56	Dispensing pharmacy	1	3	5 2 1/2
<i>Phr.</i> 61-62	Commercial pharmacy	3 1	0 2	4 6 1/2
<i>Ph</i> 56	<i>mfg - phar</i>	1	3	2 1/2



## Third Year

<i>Chm. 103-104</i>	Organic chemistry	3	0	6
<i>Chm. 107-108</i>	Newer remedies	2	0	4
<i>Chm. 109 (110)</i>	Analytical chemistry (advanced volumetric and pharmacopœial assaying)	0	6*	3
<i>MM 101-102</i>	Materia medica	3	0	6
<i>MM 103-104</i>	Toxicology	1	0	2
<i>MM 109-110</i>	Pharmaceutical sundries	1	0	2
<i>Phr. 101-102</i>	Theoretical pharmacy	3	0	6
<i>Phr. 103-104</i>	Theoretical dispensing pharmacy	2	0	4
<i>Phr. 105</i>	Manufacturing pharmacy	0	6*	3
<i>Phr. 107-108</i>	Dispensing pharmacy	0	4	4
<i>Phr. 109-110</i>	Pharmaceutical jurisprudence and business pharmacy	3	0	6

## UNIVERSITY COURSE

## First Year

		Class Hours	Laboratory Hours	Points
<i>Chm. 1-2</i>	General physics	2	0	4
<i>Chm. 3-4</i>	Inorganic chemistry	3½	0	7
<i>Chm. 7-8</i>	Analytical chemistry (qualitative)	½	3	4
<i>MM 1-2</i>	Botany	2	0	4
<i>MM 7-8</i>	Posology	½	0	1
<i>MM 9-10</i>	Plant morphology and histology	1	4½	6½
<i>Phr. 1-2</i>	Theory of pharmacy	3	0	6
<i>Phr. 3-4</i>	Manufacturing pharmacy	1	3	5
<i>Phr. 5-6</i>	Dispensing pharmacy	½	2	3
<i>Coll. 1-2</i>	English	3	0	6
<i>Coll. 3-4</i>	American government	3	0	6

## Second Year

<i>Chm. 51-52</i>	General physics	1	0	2
<i>Chm. 54</i>	Practical physics	0	4†	2
<i>Chm. 55-56</i>	Inorganic chemistry	3	0	6
<i>Chm. 57-58</i>	Analytical chemistry (acidic ions and volumetric)	0	3	3
<i>MM 55-56</i>	Macroscopic pharmacognosy	0	2	2
<i>MM 57-58</i>	Human physiology and hygiene	2	0	4
<i>MM 61-62</i>	Bacteriology	1	2	4
<i>Phr. 51-52</i>	Theory of pharmacy	1½	0	3
<i>Phr. 53-54</i>	Pharmaceutical Latin	1½	0	3
<i>Phr. 57-58</i>	Dispensing pharmacy	1	3	5
<i>Phr. 59</i>	Manufacturing pharmacy	½†	3½†	2½
<i>Phr. 61-62</i>	Commercial pharmacy	¾	2	4
<i>Coll. 51-52</i>	German	5	0	10

\* During 16 weeks.

† During 16 weeks.

## Third Year

<i>Chm.</i> 101-102	Theories of chemistry	1	0	2
<i>Chm.</i> 103-104	Organic chemistry	3	0	6
<i>Chm.</i> 106	Analytical chemistry (advanced volumetric, pharmacopœial testing and urine analysis)	0	16 †	10
<i>MM</i> 101-102	Materia medica	3	0	6
<i>MM</i> 103-104	Toxicology	1	0	2
<i>MM</i> 111-112	Microscopic pharmacognosy	½	1 ½	2 ½
<i>Phr.</i> 101-102	Theoretical pharmacy	2	0	4
<i>Phr.</i> 109-110	Pharmaceutical jurisprudence and business pharmacy	3	0	6
<i>Phr.</i> 111	Manufacturing pharmacy	0	14 §	5
<i>Phr.</i> 113	Practical dispensing pharmacy	0	3	2
<i>Coll.</i> 101-102	Mathematics	3	0	6

## Fourth Year

<i>Chm.</i> 151-152	Inorganic quantitative analysis	1	29 ¶	10
<i>Chm.</i> 153-154	Food analysis and toxicology	1	29 ¶	10
<i>Chm.</i> 155-156	Biological chemistry	1	0	2
<i>Chm.</i> 157-158	Chemical bibliography	1	0	2
<i>MM</i> 152	Applied pharmacognosy	2	21 ¶	6 ½
<i>MM</i> 154	Botanical taxonomy	0	6 ¶	1 ½
<i>MM</i> 155-156	Human physiology	1	0	2
<i>Phr.</i> 151-152	Advanced pharmacy	1	0	2
<i>Phr.</i> 153-154	Pharmaceutical assaying	0	7 ¶	7

† During 19 weeks.

§ During 12 weeks.

|| During 10 weeks.

¶ During 8 weeks.

# COURSES OF INSTRUCTION

## CHEMISTRY

**Chemistry 1-2—General physics** (for University freshmen and first-year College Students). Lectures and recitations 2 hours, 4 points. Professor A. TAUB and instructors.

This course is so arranged as to emphasize those phases which have a direct bearing upon chemistry and pharmacy. After a consideration of the general properties of matter and the elements of mechanics a number of lectures are devoted to the discussion of the kinetic molecular theory and to wave motion. This is then followed by the consideration of chapters on sound and heat.

The lectures are abundantly illustrated with experiments, the College possessing a fine set of physical apparatus.

Textbook: Stewart, *College Physics*.

**Chemistry 3-4—General inorganic chemistry** (for University freshmen and first-year College Students). Lectures and recitations 3½ hours, 7 points. Professors ARNY and A. TAUB and instructors.

This course, the beginning of consecutive instruction in chemistry covering three years, is given to the first-year students of both the College and the University Classes. It opens with a careful consideration of the fundamental principles of chemistry, special attention being given to the modern theories concerning valence, chemical equilibrium, oxidation and reduction and atomic structure.

Exercises in writing and calculating chemical equations and work on problems in chemical arithmetic are given in special quiz periods devoted exclusively to these important subjects.

On the side of descriptive chemistry, the non-metals and their compounds are discussed from their cultural, technical, and pharmaceutical viewpoints.

Textbooks: Deming, *General Chemistry*, second edition; *U. S. Pharmacopœia*.

**Chemistry 5-6—Analytical chemistry** (first-year College Students). Recitations ½ and laboratory 3 hours, 4 points. Professors MACSATA, SCHAEFER and instructors.

The course in analytical chemistry consists of laboratory instruction and is attended by the class in sections. Each student is provided with the necessary equipment, and is required to perform all the operations involved in qualitative chemical analysis. The uses of apparatus, the actions of reagents, and the proper manner of bringing about chemical reactions are illustrated and explained. On account of the fundamental importance to the true understanding of the subject the simple laws governing chemical action in solution and the formation of precipitates, the nature of solution, etc., are explained to the student. At first, and under the guidance of the teacher, the characteristic reactions of the basic components are studied in solution, or in the solid at a high temperature. The phenomena observed are interpreted and discussed, and the conclusions recorded. Later, the reactions are represented by equations. The value of grouping is utilized and separations and identifications of group members are performed. Finally, all facts required by direct observation are brought together in the systematic procedure for analysis of mixtures. In this recapitulation, individual effort is stimulated by independent work on unknown samples.

Textbook: Schaefer & Bliss, *Qualitative Chemical Analysis*.

**Chemistry 7-8—Analytical chemistry** (for University freshmen). Recitations ½ hour and laboratory 3 hours, 4 points. Professor KASSNER and instructors.

The student will first be made familiar with laboratory processes by means of a course of experiments in general chemistry, involving the isolation of certain elements, a study of their physical and chemical properties, and of their principal compounds. Simple laws and phenomena will be

explained to the student in the course of this work. In this way, experience in manipulation and a true understanding of the subject will be obtained.

This preliminary course leads to a systematic course in qualitative analysis and during the first year the reactions of the basic ions are studied. The student is taught the separation and identification of these, and finally is required to analyze systematically solutions containing two or more basic ions.

Textbook: Scott, *Elements of Qualitative Chemical Analysis*.

**Chemistry 51-52—General physics** (for University sophomores and second-year College Students). Lectures and recitations. 1 hour, 2 points. Professors SCHAEFER and A. TAUB.

This course is a continuation of *Chemistry 1-2* (general physics) and embraces the subjects of magnetism, electricity, and light. Special consideration is given to ionization, electrolysis, the electron hypothesis, vacuum tubes, the spectroscope, spectrum analysis, double refraction, and the polariscope.

The lectures will be accompanied and made more interesting by many exhibitions and experiments.

Textbook: Stewart, *College Physics*.

**Chemistry 54—Practical physics** (for University sophomores). Laboratory course 4 hours, 2 points. Professor A. TAUB and instructors.

The course consists of sixteen half-day periods of four hours each, given during the second half of the year.

This work consists of experiments in fundamental physical measurements followed by special work in mechanics, heat, light, sound and electricity. The laboratory is equipped not only with apparatus for routine exercises, but has the appliances necessary for work in colorimetry, spectroscopy, spectrophotometry, refraction, calorimetry, and electrochemistry.

**Chemistry 55-56—Inorganic chemistry** (for University sophomores, and second-year College Students). Lectures and recitations 3 hours, 6 points. Professors ARNY and A. TAUB and instructors.

This course, a continuation of *Chemistry 3-4* will be devoted to a consideration of the metallic elements and their compounds. It will open with a discussion of ionization and throughout the course, all of the more important principles of theoretical inorganic chemistry will be discussed. In descriptive chemistry, the course will consider all of the more important metallic elements. These will be discussed from the standpoint of modern industrial chemistry.

Textbook: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition.

**Chemistry 57-58—Analytical chemistry** (for University sophomores). Laboratory course 3 hours, 3 points. Professor KASSNER and instructors.

The course in qualitative analysis begun in the first year is continued through the first half of the second year. The sequence of work is as follows:—(1) the study of the acidic-ions according to an analytical scheme of separation; (2) a systematic method of preliminary testing of unknown compounds; (3) the preparation for analysis of water-insoluble substances; and (4) the complete qualitative analyses of unknown solutions or powders containing two or more compounds.

The second half of the year's work is devoted to a course in volumetric analysis. This begins with the study of general principles and theoretical considerations, the theory of indicators, pH values and the use of the analytical balance. It continues with the preparation of certain volumetric solutions and their uses in quantitative analysis by (1) neutralization (2) precipitation, (3) oxidation and reduction, and (4) iodometry.

Textbooks: Scott, *Elements of Qualitative Chemical Analysis*; U. S. Pharmacopœia.

**Chemistry 59-60—Analytical chemistry** (second-year College Students). Laboratory course 3 hours, 3 points. Professors SCHAEFER and MACSATA and instructors.

The first half of the second-year course is devoted to completing the instruction in qualitative analysis. The discussion of the simpler fundamental laws governing chemical and physical changes in solution, begun in the first year, are followed to conclusion. The preliminary testing and preparation of a sample for analysis, involving solution in solvents other than water, and the procedure for analysis of substances insoluble in water and acids, are studied and practiced. The greater part of the time is devoted to the study of the acidic components.

The second half of the school year is devoted to the theory and practice of volumetric analysis. The proper preparation of volumetric solutions is given consideration and all types of U. S. P. volumetric assays are conducted. The theories of indicators are presented and considerable time is devoted to the calculations involving a knowledge of volumetric analysis.

Textbooks: Schaefer and Bliss, *Qualitative Chemical Analysis*; U. S. Pharmacopœia.

**Chemistry 101-102—Theories of chemistry** (for University juniors). Lectures and recitations 1 hour, 2 points. Professor SCHAEFER.

The object of this course is to bring together, to correlate and to elaborate somewhat the various theories presented to the student in the regular chemistry and physics lectures. Consideration is given to the kinetic theory, the gas laws, the laws governing change of state, the quantitative laws of chemical combination, the atomic hypothesis, the laws of valence, the periodic system, radioactivity, atomic disintegration, atomic structure, solubility, ionization, indicators, equilibrium, electrochemistry and colloids.

Special importance is placed upon the practical application of modern theories of physical chemistry to analytical processes and methods.

Textbook: Chapin, *College Chemistry*.

**Chemistry 103-104—Organic chemistry** (for University juniors and third-year College Students). Lectures and recitations 3 hours, 6 points. Professors ARNY and A. TAUB and instructors.

This course, a continuation of *Chemistry 3-4* and *55-56*, will be devoted to a comprehensive study of the carbon compounds, special care being taken to keep the course abreast the new applications of organic chemistry in pharmacy and medicine. The preparation of the more common organic chemicals is given careful consideration and advances under modern methods of research are presented to the class as they are reported.

All the official and the more important unofficial organic pharmaceutical chemicals and medicinal products, notably the newer synthetic remedies, are taken up and classified according to their position in the various organic groups. By this method of classification the subject of organic pharmaceutical chemistry is presented in the same sequence as that of general organic chemistry.

Textbook: Sadler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition; U. S. Pharmacopœia.

**Chemistry 107-108—Newer remedies** (third-year College Students). Lecture and recitations 2 hours, 4 points. Professor SCHAEFER and instructors.

The aim of this course is to make the students familiar with the many preparations generally classified as "synthetics" which are prescribed by physicians but which are not official. Most of these preparations are rather recent additions to our materia medica and many of them are covered by patents. The products are not selected because of their medicinal merit but rather because of the frequency with which they are prescribed. Not only will the chemistry of these preparations be considered, but whenever possible, original packages will be shown to the students and the names of their manufacturers given.

Textbooks: *New and Non-official Remedies*.

**Chemistry 109—Analytical chemistry** (third-year College Students). Laboratory 6 hours for  $\frac{1}{2}$  year, 3 points. Professors SCHAEFER, MACSATA and instructors.

This course will be given in six-hour periods to one section during the first half year and to the other section during the second half. This will enable the student to perform operations which require more time than is available in the usual three-hour period. The course will be devoted

entirely to pharmaceutical testing and assaying. Some of the more important operations to be carried out are:—The preparation and standardization of volumetric solutions, testing the purity and strength of official chemicals and galenicals, selected gravimetric determinations, iodine values, saponification values, examination of oils, identification of alkaloids. The assay of crude drugs will be given special attention by dividing the section into still smaller groups for this work thus insuring better and more careful supervision. Practice will of course be given in the use of the analytical balance.

Textbooks: *United States Pharmacopœia and National Formulary*.

**Chemistry 110**—Same as *Chemistry 109*, but given during the second half of year.

**Chemistry 106**—Analytical chemistry and urine analysis (for University juniors). Laboratory, 16 hours for 19 weeks, beginning December 15, 1930, 10 points. Professor KASSNER and instructors.

During the first part of the course, the student is supplied with pure and adulterated samples of official organic chemicals and is required to test them for identity and purity to determine whether they conform to the requirements of the Pharmacopœia, each sample studied representing a typical class of organic compound. This work also involves the determination of congealing, boiling and melting points, fractionations, alcoholometric estimations and other determinations of like character.

The second section of the course is devoted to volumetric analysis, the solutions used being prepared and standardized by the student. The substances assayed include antiseptics, disinfectants, ointments, volatile oils, etc.

The third part of the year's work deals with the assaying of vegetable drugs, including the determination of alkaloids in crude drugs and their pharmaceutical products, crude fiber, soluble extractive, etc.

The above course is concluded with certain miscellaneous assays. The final period is devoted to the analysis of urine.

Textbooks: *U. S. Pharmacopœia*; Weston, *Carbon Compounds*.

**Chemistry 151-152**—Inorganic quantitative analysis (for University seniors). Lectures 1 hour a week for 32 weeks, laboratory, 29 hours a week for 8 weeks, beginning September 22, 1930, 10 points. Professor KASSNER and instructors.

The aim of this course is to train the student to carry out with precision many of the more difficult analyses of chemical and pharmaceutical products.

The laboratory work of the course consists, in the main, of a series of selected gravimetric determinations covering a wide field of substances, chosen to illustrate typical methods of procedure. This work is supplemented by operations involving the use of the viscosimeter, bomb calorimeter, etc.

In the lecture course, methods of quantitative analysis, gravimetric, volumetric, colorimetric, etc., are discussed at length and compared.

Reference books: Clowes and Coleman, *Quantitative Analysis*; Scott, *Standard Methods of Chemical Analysis*.

**Chemistry 153-154**—Food analysis and toxicology (for University seniors). Lectures 1 hour a week for 32 weeks, laboratory 29 hours a week for 8 weeks, beginning November 17, 1930, 10 points. Professors ARNY and KASSNER and instructor.

In order to give every advantage to the instruction in this department during the fourth year, the College has provided very complete apparatus, which supplies the very best facilities that modern science affords.

The work in this department will cover the following courses:

1. Analysis of various foodstuffs, including milk, butter, flavoring extracts, etc.
2. Chemical and sanitary examination of water.
3. Isolation and detection of organic and inorganic poisons.

In addition to the laboratory work just outlined there will be a lecture course describing the various chemical and physical methods of food examination.

Textbooks: Leach, *Food Analysis*; Mason, *Examination of Water*.

Reference Books: Allen, *Commercial Analysis*; Autenrieth-Warren, *Detection of Poisons*.

**Chemistry 155-156—Biological chemistry** (for University seniors). Lectures 1 hour, 2 points. Dr. KARSHAN.

The instruction in inorganic and organic analysis relates to the examination of substances disconnected from the living body, but the competent analyst must be prepared to consider and act upon a knowledge of the natural changes which substances undergo when absorbed into the living body, as well as the natural products there originating.

**Chemistry 157-158—Chemical and general bibliography** (for University seniors). Lectures and conferences 1 hour, 2 points. Professors ARMY and KASSNER.

This course will consist of lectures on the source books of chemistry, pharmacy, botany and cognate sciences and on the periodical literature on the same subjects. At the conferences, special themes will be assigned to each student for research during spare hours.

## MATERIA MEDICA

**Materia Medica 1-2—Botany** (for University freshmen and first-year College Students). Lectures and recitations 2 hours, 4 points. Professor HART and instructors.

The object of this course is to prepare the student for an understanding of that part of materia medica which relates to vegetable drugs. In the limited time allotted to this study, it is impossible to pursue it in all its departments, and attention is concentrated upon such instruction as will fit the student for professional work in pharmacy. The instruction includes a brief consideration of plant life in general and the evolution of the higher plants from those of a simpler nature. The major portion of the time available is devoted to the morphology of the higher plants from which nearly all of our vegetable drugs are derived, the terms used in official descriptions, systems of classification, and botanical nomenclature.

The lectures are illustrated by large colored charts, and in some cases, with cards in the hands of the students.

For the use of the instructor in the quiz room, the Alumni Association has provided an elaborate series of *papier-mâché* models arranged to illustrate structure and dissection.

Textbook: Rusby, *Manual of Botany*.

**Materia Medica 3-4—Botany laboratory** (first-year College Students). Lectures and recitations 1 hour, laboratory 4 hours, 6 points. Professors BAL-LARD, HART and TAUB and instructors.

Morphology.—Pharmacognosy, while itself not a science, may be regarded as the art of applying scientific knowledge to the examination of drugs. The theoretical and practical training of the lecture and recitation room is designed to fit the student for such botanical observations as can ordinarily be made with the naked eye.

To enable him to extend these observations by the use of the simple or dissecting and the compound microscope, in preparation for the study of pharmacognosy in the following year, a course of laboratory instruction is provided. This portion of the work is under the direction of Professor HART, and consists in thoroughly training the students in the use of the simple microscope, and in teaching the structure of all parts of the plant which can be studied with that instrument. In this laboratory instruction a developmental sequence of plant life is followed, beginning with the single-celled forms and terminating with a detailed study of the various organs of the seed-bearing plants.

The material for these studies is collected during the summer season, and carefully selected with a view to best illustrating the points brought out in the lecture room.

**Histology.**—As ability to use a microscope properly is the foundation of success in all branches of microscopy, first attention is given to a consideration of the parts of the instrument. The uses of the various types of objectives, oculars, illuminating apparatus and mechanical accessories are explained and demonstrated. The details of sectioning, embedding, staining and mounting specimens are illustrated by demonstrations, and at least part of the work is performed by the student.

The course under the direction of Professor BALLARD includes the study of plant tissues and the various types of cell contents. A physiological grouping of the tissues is followed by detailed study of the forms, modifications, locations, functions and differences in chemical constitution of the cellular elements concerned in protection, support, absorption, transportation, synthesis and storage. The organic and inorganic cell contents are classified; details of their synthesis are considered and the more commonly used microchemical tests are demonstrated. This work is followed by a detailed study of the arrangement of cells and disposition of cell contents in the various parts and organs of the plant. Each student prepares a set of specimens for use in the course and is required to follow the lecture explanations by personal observation and drawings illustrating the topics considered at each session.

Textbooks: Ballard, *Elements of Vegetable Histology*, 2nd Edit.; Ballard and Hart, *Laboratory Manual*.

**Materia Medica 5-6—Posology** (first-year College Students). Lectures and recitations 1 hour, 2 points. Professor H. TAUB.

The average dosage of U. S. P. and N. F. drugs is considered with the object of teaching the student to recognize an overdose in actual prescription practice. The course covers the recognition of safe and dangerous prescriptions, approximate equivalents and conversion methods from one system into the other, and dosage of non-official but commonly prescribed synthetic remedies.

**Materia Medica 7-8—Posology** (for University freshmen). Lectures and recitations ½ hour, 1 point. Professor H. TAUB.

The relationship in dosage of chemically similar substances and botanically related drugs is considered during the first portion of the course; the material of the College Course is given in brief in the latter half.

**Materia Medica 9-10—Plant morphology and histology** (for University freshmen). Lectures 1 hour, laboratory 4½ hours, 6½ points. Professors BALLARD, HART, TAUB and instructors.

**Morphology.**—The laboratory course in morphology is designed to supplement the lectures in pharmaceutical botany (*Materia Medica 1-2*). It affords practical training in simple plant dissection, both with and without the dissecting microscope, thereby illustrating the topics considered in the above lecture course and fitting students for the advanced studies of pharmacognosy and taxonomy.

**Histology.**—This section of the course includes a systematic review of one or more representative orders of the Thallophyta, Bryophyta, Pteridophyta and Spermatophyta. The chief object is the tracing of the origin and development of the various tissues and organs occurring in the higher plants. This is followed by a detailed study of the various cellular elements, considered both as individual tissues and as integral parts of plant organs.

Textbooks: Ballard, *Elements of Vegetable Histology*, 2nd Edit.; Ballard and Hart, *Laboratory Manual*; Rusby, *Manual of Botany*; Curtis, *Nature and Development of Plants*.

**Materia Medica 53-54—Pharmacognosy, macroscopic and microscopic** (second-year College Students). Laboratory 3 hours, 3 points. Professors BALLARD, TAUB and instructors.

**Macroscopic.**—This part of the course comprises laboratory instruction in the classification, identification and description of the vegetable drugs of the U. S. Pharmacopœia and National Formulary. The drugs and medicinal products of vegetable origin are grouped according to the parts of the plant from which they are derived and further classified on the basis of medicinal constituents. Each drug receives separate attention in the laboratory and the following details are considered—titles under which the drug is known; botanical, geographical and commercial



sources; official description, definition and prevailing standards; liability to adulteration or substitution; preparation for market and proper means of preservation or storage.

Each student receives a typical specimen of the drug under consideration and must retain the same for future reference. At the completion of the course each student possesses a collection of the official crude drugs as his personal property. Proficiency in the identification of the drugs studied is determined by practical examinations at short intervals during the term. Botany (courses *Materia Medica 1-2, 3-4* or equivalent) are prerequisite to a proper understanding of the work in this course.

Textbooks: Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*.

Microscopic.—The preliminary work of this part of the course will consist of a brief review of the cellular elements and cell contents in the parts of plants used as drugs or foods. In this manner the work in vegetable histology of the first year (course *Materia Medica 3-4*) is coordinated to the more detailed study of microscopical pharmacognosy. Powders prepared from drugs representing different parts of the plant will be used as material for study. By utilization of the sections prepared in the first year it will be possible, in many instances, for the student to compare the section with the powder and thus observe the disposition of the cellular elements *in situ* and the changes in appearance incidental to powdering. The number of specimens studied is necessarily limited by the amount of time which can be given to the work but the subject matter of the course is so arranged that representative rather than extraordinary types are considered. The student is expected to construct and use analytical keys in the identification of the powdered materials examined. Progress in course is determined by a series of practical examinations at short intervals throughout the year and the student must record his observations by drawings made from his specimens.

Textbooks: Ballard, *Elements of Vegetable Histology*, 2nd Edit.; Ballard and Hart, *Laboratory Manual*.

**Materia Medica 55-56—Macroscopic pharmacognosy** (for University sophomores). Laboratory 2 hours, 2 points. Professors BALLARD and TAUB.

This course includes all of the instruction offered in macroscopic pharmacognosy, *Materia Medica 53-54*, but in addition many non-official articles of commercial and technical importance are studied. Experience in manufacturing fields has shown that these non-official drugs and drug materials are in frequent use and familiarity with them is especially important in view of their non-inclusion in the Pharmacopœia and National Formulary.

Textbooks: Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*; Youngken, *Pharmacognosy*.

**Materia Medica 57-58—Human physiology and hygiene** (for University sophomores and second-year College Students). Lectures and recitations 2 hours each, 4 points. Professor RUSBY and instructors.

In addition to the skill in pharmacognosy required for the selection of drugs, the educated pharmacist is required to possess some general information concerning the properties and uses of the materials which he is engaged in handling and dispensing; that is, of the general classification of medicines. As such classification depends directly upon their physiological properties, a limited and specialized course of instruction in human physiology is provided.

The method consists in so arranging the order of subjects that the student shall be led from the very first lesson to see the manner in which disordered bodily functions may be restored to a healthy condition by the action of medicines, and leads to the immediate classification of the more important remedies, in connection with the study of the organs or systems to the functions of which they apply. While this method gives an accurate knowledge of the facts involved, it permits of the exclusion of a large portion of the subject of physiology, and reduces to a minimum the amount of time expended in acquiring such a knowledge of this department of materia medica as is properly required of the practicing pharmacist.

Textbook: Bachman and Bliss, *Essentials of Physiology*.

**Materia Medica 59-60—Microbiology** (second-year College Students). Lectures and recitations 1 hour, laboratory and demonstrations 1 hour, 3 points. Professor HART and instructors.

This subject constitutes an introduction to the nature, behavior and effects of microorganisms, especially of bacteria. Without entering upon the subject of practical laboratory bacteriology, as

is done in the University Course, it discusses the life history of bacteria, and the part that they play in fermentation and decomposition, as well as in disease, and indicates the general nature of the means employed in combating them, and treats of biological products. The subject of sterilization, as employed in the pharmacy, and the principles of antiseptics and immunization are studied.

The study of yeasts, molds and blood smears is included in this course.

**Materia Medica 61-62—Bacteriology** (for University sophomores). Lectures 1 hour, laboratory 2 hours, 4 points. Professor HART and instructors.

The bacteriological laboratory in our new building has been fully equipped, and practical work in this important field is taken up. The general principles of the science are taught, and the students cultivate, stain, and study the more important microorganisms. Laboratory methods in the bacterial examination of water, air, milk, ice, sputum and excreta are given, and methods of disinfection and sterilization are practically demonstrated.

Textbook: Park and Williams, *Pathogenic Microorganisms*.

**Materia Medica 101-102—Materia medica** (for University juniors and third-year College Students). Lectures and recitations, 3 hours, 6 points. Professors RUSBY, TAUB and instructors.

This course includes instruction in both the inorganic and organic divisions of drugs. In connection with the extension of our course to three years, the instruction in materia medica has been completely reorganized and a new textbook has been written for the students. In the new arrangement, the drugs have been classified in accordance with their medicinal uses. Discussion of the individual drugs covers the official titles, abbreviations, definitions and standards, origin, preparation, preservation, variations in quality and causes of such variation, constituents, properties and uses, preparations and doses. All instruction in description, structure and identification, and the detection of adulterants and impurities is referred to the extensive course in pharmacognosy.

Textbook: Rusby, Bliss and Ballard, *Properties and Uses of Drugs*.

**Materia Medica 103-104—Toxicology** (third-year College and University Classes). Lectures and recitations, 1 hour, 2 points. Professors RUSBY and TAUB and instructors.

The classification of poisons is based upon the physiological action of medicines, taught in the preceding year, and is synoptically presented at the beginning of the course in materia medica. The toxicology of the individual drugs is then taken up in detail in connection with their physiological action and medicinal uses. Experience has shown that by this method the modes of occurrence of poisoning accidents, the poisonous doses, the action of poisons and their rational treatment, are all made more intelligible to the student, and are better impressed upon his memory, than by treating the subject as entirely disconnected from that of materia medica.

Textbook: Rusby, Bliss and Ballard, *Properties and Uses of Drugs*.

**Materia Medica 109-110—Pharmaceutical sundries** (third-year College Students). Lectures 1 hour, 2 points. Professor BALLARD.

This course includes a systematic presentation of the facts of interest to the retail pharmacist in the use and sale of the ordinary sick-room sundries. The course is thus linked with materia medica on the one hand and commercial pharmacy on the other. Among the topics considered are: bandaging and dressing materials, rubber sundries, glass and metal appliances, ligatures and first-aid apparatus.

**Materia Medica 111-112—Microscopic pharmacognosy** (for University juniors). Lectures  $\frac{1}{2}$  hour, laboratory  $1\frac{1}{2}$  hours,  $2\frac{1}{2}$  points. Professors BALLARD, TAUB and instructors.

This course consists in a detailed study of the histological structure of the several plant organs, followed by a consideration of the characters and adulterants of the commonly used powdered drugs. It includes the preparation of specimens both in sectioned and powdered forms and the application of stains and microchemical tests to the materials so prepared.

Textbook: Ballard, *Laboratory Manual*.

**Materia Medica 152—Applied pharmacognosy** (for University seniors). 2 hours lecture, 21 hours laboratory for eight weeks beginning March 23, 1931, 6½ points. Professors BALLARD and TAUB.

The object of this course is instruction in the methods of applying the principles of microscopy to practical problems apt to be encountered in the average commercial laboratory. The introductory work will consist of a consideration of the general methods employed in microanalysis and the uses of the more common accessories, including polarizing apparatus, measuring apparatus, counting chambers, dark field and vertical illumination. Each student is required to prepare sections of the various types of vegetable materials, using these sections for the demonstration of staining procedures and microchemical reactions. This will be followed by practical and individual work in the qualitative determination of typical drugs and mixtures to which microanalytical methods are applicable. During this work, it is expected that the student will avail himself of the library facilities of the College and freely use the economic drug and food collections of the laboratory for reference and comparison purposes. The aim is to duplicate actual commercial laboratory conditions and to train the worker to depend upon himself. The materials used for teaching purposes will, so far as possible, be commercial products which have been analyzed by microscopical methods.

References: Youngken, *Pharmacognosy*.

**Materia Medica 154—Botanical taxonomy** (for University seniors). 6 hours laboratory for eight weeks beginning March 23, 1931. 1½ points. Professor RUSBY.

A good working knowledge of the terms used in descriptive botany, such as can be gained by a study of Rusby, *Manual of Botany*, will be found a sufficient preparation for this course.

The object of this course is to present a general idea of the system of flowering plants, and of their classification and determination by the use of descriptive works. The work consists of the laboratory study of types of the principal families, especially those rich in medicinal and poisonous species.

Textbook: Rusby, *Manual of Botany*.

References: Bentham and Hooker, *Genera Plantarum*; Engler and Prantl, *Pflanzenfamilien*.

**Materia Medica 155-156—Human physiology** (for University seniors). Textbook and conferences 1 hour, 2 points. Dr. HOPPING.

This course consists of a series of discussions, based on assigned reading, occupying 1 hour weekly throughout the term.

Textbook: Howell, *Physiology*.

## PHARMACY

**Pharmacy 1-2—Theory of pharmacy including metrology and operative pharmacy** (first-year College and University Classes). Lectures 2 hours, recitation 1 hour. Professors WIMMER, BROWN, CARTER and instructors. 6 points.

The purpose of this course is to introduce the student to the fundamentals of pharmaceutical science. It comprises the study of elementary pharmaceutical operations, such as heating, evaporation, sublimation, distillation, solution, crystallization, precipitation, filtration, etc. It also includes the study of the general principles involved in the manufacture of the various classes of pharmaceutical compounds, such as the fluid extracts, tinctures, syrups, elixirs, etc.

A series of lectures is devoted to a brief study of the historical development of pharmacy, beginning with the Egyptian age and tracing it through the Greek, Roman, Arabic, and European periods up to the present time. Special stress is laid upon the development of pharmacy in the United States, upon its position in the economic life of the nation; its organization; the accomplishments, aims and purposes of the various pharmaceutical associations; the pharmaceutical code of ethics.

The lectures on metrology comprise the study of the various systems of weights and measures and of their relationships to each other; specific gravity and its uses in pharmacy; thermometric scales, etc.

Textbooks: *U. S. Pharmacopœia X*; Arny, *Principles of Pharmacy*; Sturmer, *Pharmaceutical Arithmetic*.

**Pharmacy 3-4—Manufacturing pharmacy laboratory** (first-year College and University Classes). Laboratory course 3 hours, recitation 1 hour. Professors BROWN, CARTER, DORFMAN and instructors. 5 points.

The work of this course affords students the opportunity to apply practically their theoretical knowledge of the processes of calcination, distillation, sublimation, crystallization, purification and granulation of salts, and the determinations of specific gravity, solubility of salts and alcoholic content of liquids. It also includes the manufacture of tinctures, fluid extracts, and extracts by percolation, and the preparation of various classes of galenicals and the more simple types of chemical preparations.

Textbooks: Diekman and Wimmer, *Manufacturing Pharmacy Laboratory Notes* and *U. S. Pharmacopœia*.

**Pharmacy 5-6—Dispensing pharmacy laboratory** (freshman University Class). Laboratory course 2 hours, recitation  $\frac{1}{2}$  hour. Professor CARTER and instructors. 3 points.

The work of this course is similar in scope, covering laboratory work and instruction, as outlined under *Pharmacy 55-56*.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; *U. S. Pharmacopœia* and *National Formulary*.

**Pharmacy 51-52—Theoretical pharmacy including pharmaceutical arithmetic** (second year College and University Classes). Lecture 1 hour, recitation  $\frac{1}{2}$  hour. Professors WIMMER, BROWN and instructors. 3 points.

This course is devoted to the study of pharmaceutical arithmetic in its various aspects. It comprises the study of proportions, percentage, alligation, reducing and enlarging formulæ etc., as used in both manufacturing and dispensing pharmacy.

During the second semester the study of the official preparations is begun and carried along through the fluid extracts, extracts, tinctures and other preparations made directly from vegetable drugs.

Textbooks: Sturmer, *Pharmaceutical Arithmetic*; *U. S. Pharmacopœia*; *National Formulary*.

**Pharmacy 53-54—Pharmaceutical Latin** (second-year College and University Classes). Lecture 1 hour, recitation  $\frac{1}{2}$  hour. Professor DORFMAN and instructors. 3 points.

This course is devoted to the study of pharmaceutical Latin. The work is divided as follows: (A) Study of the principles of etymology and syntax; (B) systematic study of Latin vocabulary including official Latin titles, botanical nomenclature and abbreviations with special reference to the formation of words and their relative importance to pharmacy; and (C) practice in prescription writing, necessary to an intelligent understanding of Latin used in prescriptions.

Textbooks: Sturmer, *Pharmaceutical Latin*; *U. S. Pharmacopœia*; *National Formulary*.

**Pharmacy 55-~~56~~**—Dispensing pharmacy laboratory (second-year College Class). Laboratory course 3 hours, recitation 1 hour. Professors BROWN, DORFMAN and instructors. 3 points.

The first semester embraces general methods of compounding pills, troches, bacilli, emulsions, ointments and suppositories. It includes theoretical instruction and training in practical work emphasizing the habits of accuracy and neatness.

The second semester deals more especially with prescriptions and includes the compounding and dispensing of the various types requiring technical knowledge and skill. Consideration is

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given to tablet triturates, mucilages, mixtures, and filling of capsules, cachets, collapsible tubes, etc. General instruction is given in the reading and interpretation of prescriptions, the recognition of the various constituents of their ingredients together with the proper methods and manner of dispensing them.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; Scoville, *The Art of Compounding*; U. S. Pharmacopœia and National Formulary.

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**Pharmacy 57-58—Dispensing pharmacy laboratory** (sophomore University Class). Laboratory course 3 hours, recitation 1 hour. Professor CARTER and instructors. 5 points.

This course is a continuation of the work in the dispensing laboratory of the first year involving thorough laboratory work and instruction in the preparation and dispensing of mixtures, adjusted solutions, pastilles, lamels, compressed tablets, powders, crayons, medicated gauzes, cottons, etc. During the second semester the laboratory practice deals particularly with the various phases of prescription dispensing, such as prescription writing and checking, labeling, wrapping, pricing and delivery, etc.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; Scoville, *The Art of Compounding*; U. S. Pharmacopœia and National Formulary.

**Pharmacy 59—Manufacturing pharmacy laboratory** (sophomore University Class). Laboratory course 3½ hours, recitation ½ hour, 16 weeks beginning September 24, 1930. Professor CARTER and instructors. 2½ points.

This course deals with the manufacture of the more important pharmaceutical preparations of inorganic and organic nature thus giving laboratory practice and technique preliminary to the work of the manufacturing laboratory in the third year.

Textbooks: Diekman and Wimmer, *Manufacturing Pharmacy Laboratory Notes*; U. S. Pharmacopœia.

**Pharmacy 61-62—Commercial pharmacy** (second-year College and University Classes). Lecture 1 hour, recitations 2 hours. Professor LASCOFF. 6 points. *practice*

This course in commercial pharmacy is designed to give the student a practical knowledge of the basic principles that underlie the successful management of a business. Owing to a lack of knowledge of these principles, many pharmacists have failed to achieve the degree of success to which their professional knowledge and training entitle them.

The course consists of all the activities incidental to the opening and operation of a retail drug store, including the choice of location, the elements of business administration and store management, insurance, problems of retail merchandising, including the value of discounts, banking, principles of advertising and salesmanship, business correspondence as well as the elements of systematic bookkeeping.

The accounting records are the basic source of data for business management. Accordingly, the course in commercial pharmacy will partially be devoted to the principles underlying the making and interpretation of these records.

**Pharmacy 101-102—Theoretical pharmacy** (third-year College Class). Lectures 2 hours, recitation 1 hour. Professor WIMMER and instructors. 6 points.

During the first semester, the study of the U. S. Pharmacopœia and National Formulary galenical preparations is continued and completed. Their methods of preparation are individually studied and the reasons for each step taken in their preparation are given. The second semester is devoted to the study of non-official important galenical, cosmetic and toilet preparations, as well as to the study of the pharmacy of individual substances used in prescriptions.

Textbooks: U. S. Pharmacopœia; National Formulary V; American Pharmaceutical Association Recipe Book.

**Pharmacy 103-104—Theoretical dispensing pharmacy** (third-year College Class). Lectures 1 hour, recitation 1 hour. Professor WIMMER and instructors. 4 points.

This course is devoted in the main to the study of the problems encountered by the pharmacist in his prescription work. Prescriptions of all kinds, especially such as present some difficulties, are studied with the aid of lantern slides. The numerous incompatibilities of present-day prescription work are discussed, as well as ways of avoiding or overcoming them. The subject of homeopathy receives the attention it deserves.

Textbooks: Scoville, *The Art of Compounding*; Ruddiman, *Incompatibilities*.

**Pharmacy 105—Manufacturing pharmacy laboratory** (third-year College Class). Laboratory course, 16 weeks (two sections alternating). 6 hours. Professors BROWN, DORFMAN and instructors. 3 points.

The work of this course is a continuation of the first year. Many inorganic and organic pharmaceutical preparations and salts are manufactured. In addition, galenicals, toilet preparations and hospital formulæ are compounded. Especial attention is given systematic training in the identification of many chemicals and galenicals official in the United States Pharmacopœia and National Formulary.

Textbooks: *U. S. Pharmacopœia*; *National Formulary*; *National Dispensatory*; *The Pharmaceutical Recipe Book*; Diekman and Wimmer, *Pharmacy Notes*.

**Pharmacy 107-108—Dispensing pharmacy laboratory** (third-year College Class). Laboratory course, 4 hours. Professors BROWN, DORFMAN and instructors. 4 points.

The work in the dispensing pharmacy laboratory deals particularly with the various phases of prescription dispensing, such as checking, labeling, pricing and delivery, etc. The all-important subject of chemical, pharmaceutical and therapeutical incompatibilities is thoroughly studied. The continual introduction of new remedies renders the subject of prescription incompatibilities a never-ending study, and it is the aim of this course to qualify its graduates to keep pace with discovery.

Textbooks: Ruddiman, *Incompatibles in Prescriptions*; Diekman and Wimmer, *Pharmacy Notes*.

**Pharmacy 109-110—Pharmaceutical jurisprudence and business pharmacy** (third-year College and University Classes). Lectures 2 hours, recitation 1 hour. Professor LASCOFF, Mr. NEUSTAEDTER and visiting lecturers and instructors. 6 points.

This course is designed to familiarize the student with the fundamentals underlying all law and also with the general provisions of Federal and state laws governing the practice of pharmacy. The various ordinances and regulations having local application will also be studied. Special attention is given to prohibition and anti-narcotic laws and regulations.

Lectures by practical business men will be a feature of the course. This series of lectures will give the student the principles of merchandizing from a business man's viewpoint rather than from that of the pedagogue. These lectures, as well as those of the regular course, are aimed to give the student a better understanding of contemporary business problems.

**Pharmacy 111—Practical pharmacy—manufacturing pharmacy laboratory** (third-year University Class). Laboratory 16 hours per week for 12 weeks beginning September 22, 1930. Professor CARTER and instructors. 5 points.

This course includes the manufacture of a number of the more difficult Pharmacopœial and National Formulary preparations, as well as of inorganic and organic medicinal remedies. The work is intended to qualify students for positions in pharmaceutical manufacturing establishments.

Textbook: Wimmer, *Manufacturing Pharmacy Notes*.

**Pharmacy 113—Practical dispensing pharmacy** (third-year University Class). Laboratory 3 hours per week for 10 weeks beginning September 22, 1930. Professor CARTER and instructors. 2 points.

This course embraces a thorough study of the various types of incompatibilities. A large number of prescriptions are compounded which illustrate how some incompatibilities may be avoided or overcome.

Textbooks: Diekman and Wimmer, *Incompatibilities*; Ruddiman, *Incompatibilities in Prescriptions*.

**Pharmacy 115-116—Theoretical pharmacy** (second-year University Class). Lectures 2 hours, Professor WIMMER. 4 points.

This is the same lecture course as *Pharmacy 101-102*, but no formal recitations are provided.

**Pharmacy 151-152—Advanced pharmacy** (fourth-year University Class). Lecture 1 hour. Professor WIMMER. 2 points.

This course is devoted to a detailed study of pharmaceutical, chemical and biological assay methods of vegetable and animal drugs, as well as of methods for their identification. It includes the newer methods employed, such as the standardization of tannin-containing drugs by the agglutination test, of saponin-containing drugs by the determination of their haemolytic indices, etc.

A portion of the lecture course is devoted to a study of essential oils, while especial emphasis is laid upon official oils. Those of importance in the essential oil industry are included.

In a series of seminars, students are required to prepare and present before the professors and instructors in the department, papers on current topics of interest pertaining to pharmaceutical and allied sciences.

Textbooks: Fuller, *Analysis of Drugs and Medicines*; U. S. Pharmacopœia; National Formulary V; Gildemeister and Hoffman, *The Volatile Oils*.

**Pharmacy 153-154—Pharmaceutical assaying** (fourth-year University Class). 8 weeks beginning January 26, 1930. Laboratory, 7 hours. Professors WIMMER, CARTER and instructors. 7 points.

This course is intended to prepare the student for work as a drug analyst. The entire class carries out a proximate analysis of a vegetable drug. Individual problems in assay work of the most varied and difficult kind are assigned and the student is, to a considerable extent, left to his own resources. The work embraces assays of galenicals, flavoring extracts, toilet preparations, cosmetics, medicinal gauzes, etc.

Textbooks: Fuller, *Analysis of Drugs and Medicines*; Nelson, *Introduction to the Analysis of Drugs and Medicines*; *Current Literature*.

## CULTURAL COURSES

**College 1-2—English** (for University freshmen). Lectures and recitations, 3 hours, 6 points. Mr. McJIMSEY.

This is the Columbia College course *A1-A2*, in English composition and literature, required of all freshmen at that College.

**College 3-4—American government** (for University freshmen). Lectures and recitations, 3 hours, 6 points. Mr. McJIMSEY.

This is the Columbia College course *Government 1-2*, American government. It constitutes a general survey of the most persistent problems of American government—national, state, and local—considering problems of political organization in the first semester, and problems of administrative organization and personnel, and those related to the functions of finance, justice, the relation of government to economic life, and foreign relations in the second semester.

**College 51-52—German** (for University sophomores). Lectures and recitations, 5 hours, 10 points. Mr. INGENHUETT.

This is an introductory course in German.

**College 101-102—Mathematics** (for University juniors). 3 hours, 6 points. Mr. McJIMSEY.

This course comprises the Columbia College course *Mathematics A1*, trigonometry and *A6r*, solid geometry.

## THE GRADUATE COURSE

A graduate course of two full years' study in residence, is open to graduates with the baccalaureate degree, conferred by this college or other schools of pharmacy maintaining equivalent courses of study. For the present, we are able to accommodate only two students majoring in each of the Departments of Chemistry, Materia Medica, and Pharmacy. Thirty hours' study weekly is required in the department in which the student is majoring, and three hours weekly in each of the other two departments. In the latter departments, certain work is obligatory, although an option is allowed the student, between two or more schedules, as follows:

### CHEMISTRY

#### *Fifth Year*

*Option A*—Lecture courses consisting of **Chemistry 201-202—Structural organic chemistry**. 2 hours. 4 points. Professor ARNY.

**Chemistry 203-204—Synthesis of newer organic medicinal chemicals**. 1 hour. 2 points. Professor SCHAEFER.

*Option B*—Laboratory work. **Chemistry 205—Experimental organic chemistry**. 2 periods weekly at 6 hours each during 8 weeks. 3 points. Professors ARNY and TAUB.

This course includes combustions and other organic analyses, molecular weight determinations and other such work as time permits.

#### *Sixth Year*

*Option A*—The same lecture courses offered to students of the fifth year, provided such courses have not already been offered as fifth year subjects.

*Option B*—**Chemistry 207—Advanced organic analysis**. 2 periods of 6 hours weekly during 8 weeks. 3 points. Professor KASSNER.

This course includes modern methods of organic radicles; the quantitative determination of elements and radicles not performed in previous years; and lastly, time permitting, special analytical methods such as electrometric titrations and the polarimetry of complex mixtures.

### MATERIA MEDICA

#### *Fifth Year*

*Option A*—**Materia Medica 201—Analysis and determination of cryptogamous and phanerogamous plants**. Laboratory course, two periods weekly of 6 hours each, during 8 weeks. 3 points. Professors RUSBY and HART.



*Option B—Materia Medica 203—Advanced bacteriology.* Laboratory and conferences, 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor HART.

The determination of types through special cultural and staining methods.

*Option C—Materia Medica 205—Food microscopy.* Laboratory and conferences, 2 periods weekly of 6 hours each, during 8 weeks. 3½ points. Professor BALLARD.

A systematic study of the various classes of foodstuffs in which adulteration can be determined by microscopical methods.

#### *Sixth Year*

*Option A—(To be offered only if Option A of the fifth year has been carried. If not, that work will constitute Option A of the sixth year.) Materia Medica 207—The literature and methods of research in vegetable taxonomy.* Conference and laboratory, two periods weekly of 6 hours each during 8 weeks. 3½ points. Professors RUSBY and HART.

*Option B—Materia Medica 209—Bacteriology.* Conference and laboratory, 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor HART.

The preparation of antitoxic products in media and their cultivation through animal experimentation.

*Option C—Materia Medica 211—Chemical microscopy.* Conference and laboratory, 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professors BALLARD and TAUB.

A study of the microchemical procedures involved in the use of the microscope as an aid in chemical analysis.

#### PHARMACY

#### *Fifth Year*

*Option A—Pharmacy 201—Assay and analysis of official and non-official galenicals and other medicinally compounded preparations.* Lectures and laboratory work. 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor WIMMER.

*Option B—Pharmacy 203—Manufacture, composition and analysis of toilet preparations and cosmetics.* Lectures and laboratory work. 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor WIMMER.

#### *Sixth Year*

*Option A—Pharmacy 205—Examination and analysis of incompatible mixtures with special reference to prescriptions.* Laboratory work only. 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor WIMMER.

*Option B—Pharmacy 207—Examination and analysis of essential oils, flavoring extracts and perfume materials.* Lecture and laboratory work. 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor WIMMER.

## SUBMISSION OF THESIS

At least fifteen days before the first day on which University examinations are scheduled to be held, the candidate shall submit three finished copies of his or her thesis, in typewritten form, to the professor in whose department the candidate is majoring.

The awarding of the degree shall be dependent upon the approval of the thesis, and the results of an oral Faculty examination of the candidate.

## SUMMER LABORATORY COURSES

These courses are designed to assist students who have failed at the spring examinations to prepare for those of the fall, and to provide instruction for special students in the use of the microscope, in the examination of drugs and in pharmaceutical processes.

It will thus be seen that the work is not definitely fixed, but is made sufficiently elastic to allow it to be adapted to the special needs of individuals.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

## SUMMER LABORATORY COURSES 1930

*First-, Second- and Third-Year College Classes*

June 9 to June 28—Department of Chemistry.

June 30 to July 19—Department of Materia Medica.

July 21 to August 9—Department of Pharmacy.

## SUMMER LABORATORY COURSES 1931

*First-, Second- and Third Year College Classes*

June 8 to June 27—Department of Chemistry.

June 29 to July 18—Department of Materia Medica.

July 20 to August 8—Department of Pharmacy.

## UNIVERSITY CLASSES

University students failing in laboratory courses will be advised by the Registrar regarding the summer laboratory schedules.

## EVENING COURSES

These courses of instruction, although they cannot be substituted for any of our regular work leading to degrees, have proven of great benefit to those who cannot attend during the day, and to those who desire to pursue special courses of study. General educational credits are not allowed for them. They are designed for special students as well as for members of our regular classes.

Candidates may be admitted at any time during the course, at the discretion

of the director of the course, but only those who have attended at least 80 per cent of all exercises and who pursue the courses for which they are registered in a satisfactory manner, will receive certificates.

The courses are offered on Monday, Tuesday and Friday of each week during the periods from Monday, October 6, 1930 to January 16, 1931 and from January 19, 1931 to Friday, May 8, 1931.

The Registrar's office will be open daily for registration from 10 a. m. to 4 p. m. and on Monday, Tuesday and Friday evenings from 7 to 8 o'clock, during the first two weeks of each semester.

Fees are payable in advance and are not returnable. A registration fee of \$6 is required of each student in addition to the fees stated below.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

The following courses are offered:

#### DEPARTMENT OF CHEMISTRY

**Evening Chemistry 1-2—Pharmaceutical qualitative analysis.** 1 hour classroom and 2 hours laboratory each week. Fee \$25 each semester, \$10 breakage deposit. Professor SCHAEFER and Mr. JAYNE.

7:30-10:30 p. m., Friday.

Lecture, 7:30-8:20 p. m. Friday.

Laboratory, 8:30-10:30 p. m. Friday.

This course, which presupposes a knowledge of general pharmaceutical chemistry is designed to train students in the qualitative tests for metal-ions included in the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

**Evening Chemistry 3-4—Pharmaceutical qualitative analysis.** 1 hour classroom and 2 hours laboratory work each week. Fee \$25 each semester, \$10 breakage deposit. Professor SCHAEFER and Mr. JAYNE.

7-10 p. m., Friday.

Laboratory, 7-9 p. m. Friday.

Lecture, 9:10-10 p. m. Friday.

This course is a continuation of *Evening Chemistry 1-2* with particular reference to the U. S. P. tests for acid-ions. (Conditional on the enrollment of ten students.)

**Evening Chemistry 5-6—Pharmaceutical volumetric analysis.** 1 hour classroom and 2 hours laboratory work. Fee \$25 each semester, \$10 breakage deposit. Professor SCHAEFER and Mr. JAYNE.

7-10:30 p. m., Friday.

This course is designed to give training in the volumetric assays of the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

**Evening Chemistry 7—Examination of urine.** First semester, 1 hour lecture and 2 hours laboratory work. Fee \$25, \$10 breakage deposit. Professor SCHAEFER and Mr. JAYNE.

7:15-10:30 p. m., Friday.

Lecture, 7:20-8:20 p. m., Friday.

Laboratory, 8:30-10:30 p. m., Friday.

It should be noted that to qualify for "Director" of a laboratory, as defined by the Board of Health of the City of New York, a degree at least the equivalent of a B.S., is required.

In this course the qualitative and quantitative chemical tests of normal and pathological urine are studied; also the preparation and standardization of the necessary reagents. (Conditional upon the enrollment of twenty students.)

**Evening Chemistry 8—Examination of urine.** Second semester 1½ hours lecture and 2 hours laboratory work. Fee \$25, \$10 breakage deposit. Professor SCHAEFER and Mr. JAYNE.

7:30–10 p. m., Friday.

Lecture, 7:30–8 p. m., Friday.

Laboratory, 8:20–10 p. m., Friday.

In this course, a continuation of Evening Chemistry 7, the gravimetric, polariscopic, colorimetric and microscopic examination of urine is studied. (Conditional upon the enrollment of twenty students.)

**Evening Chemistry 9–10—Newer remedies.** 1 hour lecture each week throughout the year. Fee \$30. Professor SCHAEFER.

8:30–9:30 p. m., Friday.

The aim of this course is to give the graduate pharmacist an opportunity to become familiar with the chemistry of many "recent" remedies generally classified as "synthetics" which are prescribed by physicians but which are not official. Most of these preparations are rather recent additions to our materia medica and many of them are covered by patents. The products are not selected because of their medicinal merit but rather because of the frequency with which they are prescribed. Not only will the chemistry of these preparations be considered, but whenever possible, original packages will be shown to the students and the names of their manufacturers given. (Conditional on enrollment of twenty students.)

#### DEPARTMENT OF MATERIA MEDICA

**Evening Materia Medica 1–2—Principles and practice of bacteriology.** 1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester, \$10 breakage deposit. Professor HART and assistants.

7–10 p. m., Tuesday. Lectures, 7–8 p. m. Room 42, Pharmacy.

Laboratory, 8–10 p. m.

This course includes the bacterial examination of sputum, excreta, water, air, milk and ice.

Special attention is given to the standard methods of disinfection and sterilization. The major portion of the time is devoted to the cultivation, morphology and staining properties leading to the identification of the more common pathogenic bacteria. (Conditional on the enrollment of ten students.)

**Evening Materia Medica 3–4—Blood analysis.** 1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester, \$10 breakage deposit. Professor H. TAUB and assistants.

7–10 p. m., Monday. Lecture, 7–8 p. m.

Laboratory, 8–10 p. m.

First semester: Preparation and study of blood smears in health and disease; total and differential counts; special pathology.

Second semester: Blood chemistry, including non-protein and urea nitrogen determinations, sugar, creatinin, uric acid, CO<sub>2</sub>—combining power, chlorides, calcium, cholesterol, and other constituents; hemoglobin estimation, coagulation time; establishing and operating a laboratory. (Conditional on the enrollment of ten students.)

**Evening Materia Medica 6—Parasitology.** 1 hour lecture and 2 hours laboratory work each week, second semester. Fee \$40, \$10 breakage deposit. Professor HART and assistants.

7-10 p. m., Tuesday.

In this course chief attention is given to changes from normal to abnormal blood due to parasites as well as the more pathogenic blood and intestinal parasites.

Time is also allotted to the mycology of foods. (Conditional on the enrollment of 10 students.)

**Evening Materia Medica 7-8—Microbiology.** 1 hour of lecture and demonstration each week throughout the year. Fee \$30. Professor HART.

7:30-8:30 p. m., Monday.

This course includes the methods of manufacture, standardization, administration and dosage of the commercial biological and bacteriological products and derivatives. Consideration is likewise given to the various methods of sterilization and disinfection as well as the principles of serology and immunology. (Conditional on enrollment of twenty students.)

**Evening Materia Medica 9-10—Pharmaceutical sundries.** 1 hour lecture each week throughout the year. Fee \$30. Professor BALLARD.

8:30-9:30 p. m., Monday.

While the retail pharmacist handles many items which are included under the general heading of sick-room supplies, he generally has little opportunity for systematic study of these articles and this is particularly true under present-day conditions. The object of this course of lectures is to acquaint him with the manufacture, differences and applications of bandaging and dressing materials, rubber sundries, glass and metal appliances, sutures and ligatures and the miscellaneous articles stocked in the average retail pharmacy and intended for physicians' or household use. The complicated and specialized types of surgical instruments and appliances will not be considered. (Conditional on enrollment of twenty students.)

#### DEPARTMENT OF PHARMACY

**Evening Pharmacy 1-2—Manufacturing pharmacy.** 1½ hours lectures and 1½ hours laboratory work each week. Fee \$35 each semester. Professor BROWN and assistants.

7:30-10:30 p. m., Tuesday.

This course is of value to those desiring to prepare and place upon the market lines of specialties. The course is elastic and designed to meet individual requirements. One may take up the study of an entire series of preparations, or any one preparation in considerable detail. (Conditional upon the enrollment of ten students.)

**Evening Pharmacy 3-4—Manufacture of cosmetics and toilet preparations.** 1 hour lecture and 2 hours laboratory work each week. Fee \$35 each semester. Professor WIMMER and assistants.

7:30-10:30 p. m., Tuesday. Main lecture room, Pharmacy.

This course affords a thorough review of the entire subject of cosmetics and toilet preparations, their composition and manufacture. Face lotions, hair dyes and other hair preparations, face powders and paints, cream (greasy, non-greasy and vanishing), toothwashes and powders, etc., are studied and certain types are manufactured. (Conditional upon the enrollment of ten students.)

A summary of the lecture topics will be furnished upon request.

**Evening Pharmacy 5-6—Perfume materials and perfumery.** 1 hour lecture and 2 hours laboratory work each week. Fee, \$50 each semester. Professor WIMMER and assistants.

7 p. m., Monday. Main Lecture Hall.

This course is of value to persons employed in essential oil houses and perfume manufacturing establishments and others desiring to enter this field. The lectures are illustrated with lantern slides and samples of the materials under discussion are exhibited. The laboratory work comprises the determination of physical constants, testing for impurities, etc. A systematic course in nose-training is included.

A summary of the course will be mailed upon request. (Conditional on the enrollment of ten students.)

**Evening Pharmacy 7-8—Ampuls and medicated units.** 1 hour lecture each week. Fee \$30 entire course. Professor CARTER.

7:30-8:30 p. m., Friday.

This course provides for the graduate pharmacist a thorough training in the principles of ampul medication both from the theoretical and practical viewpoints. Briefly, it considers the history, the advantages of parenteral administration, the forms and sizes of ampuls of American and foreign makes, together with the actual demonstration of ampul manufacture including glass blowing, filling, sealing, sterilization, etc. The National Formulary ampuls and products of various manufacturers are exhibited and discussed in detail paying strict attention to methods of packaging, storing and dispensing. (Conditional upon the enrollment of twenty students.)

THE ALUMNI ASSOCIATION OF THE COLLEGE OF  
PHARMACY OF THE CITY OF NEW YORK

OFFICERS AND COMMITTEES, 1930-1931

*President*

FREDERICK D. LASCOFF

*Honorary President*

ADOLPH HENNING

*Vice-Presidents*

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HUGO H. SCHAEFER

GUSTAVE BARDFELD

*Secretary*

ABRAHAM TAUB

*Treasurer*

GEORGE C. DIEKMAN

*Registrar*

CURT P. WIMMER

*Executive Board*

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MAY O'C. DAVIS, 1932.

JOHN H. HECKER, 1931.

F. J. POKORNY, 1932.

LESLIE JAYNE, 1931.

RUDOLF HAUCK, 1933.

V. K. COMMONS, 1932.

ARTHUR J. BAUER, 1933.

VITO CALCAGNO, 1933.

*Committee on Papers and Queries*

C. P. WIMMER

ADOLPH HENNING

JOHN H. HECKER

*Delegates to the American Pharmaceutical Association*

GEORGE C. DIEKMAN

C. P. WIMMER

ADOLPH HENNING

*Delegates to the New York State Pharmaceutical Association*

CHARLES W. BALLARD

HUGO H. SCHAEFER

VITO CALCAGNO

*Delegates to the New Jersey Pharmaceutical Association*

HAROLD McADAMS

CHARLES W. HOLTON

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*Delegates to the Connecticut Pharmaceutical Association*

CURT P. WIMMER

HAROLD LEVY

FRANK V. DAMTOFT

## ENDOWMENTS

For one hundred consecutive years the College of Pharmacy of the City of New York has maintained its annual courses of instruction for the education and training of pharmacists. That this instruction has exhibited a steady extension and improvement is clearly recorded in the successive editions of its annual prospectus. That such a result could not have been attained by the use of students' fees, unaided by other resources, will be readily understood by all who have had experience in educational administration. Such assistance may be said to have begun with the generous contribution of free instruction services by Professors Edward R. Squibb, Charles F. Chandler and others, in the early history of the institution, and to have continued with the services of their successors, and the unpaid management of officers and Trustees. At various times financial crises have been met by generous donations of money by officers and members, and occasionally by outside friends. In some cases, as when new quarters were to be secured, a new building was to be erected, or herbarium or apparatus to be bought, the sums thus contributed have been large, considering the resources of those contributing.

As indicated in the preceding pages of this Announcement, in addition to the College Course of three years, leading to the degree of Ph.G., there is now provided a University Course of three years, leading to the degree of Ph.Ch., with an additional year of optional work, leading to the degree of B.S. in Pharmacy.

It is not to be expected that the scanty revenue derived from the fees of the small number of students who will pursue these advanced studies will begin to provide the necessary means for meeting the additional expenditures. The College must undertake these burdens as its contribution to pharmaceutical education.

Under such conditions, it is felt that an appeal should be made to those who are interested in promoting educational development in America to give their favorable consideration and to lend their financial aid to the present efforts of the College.

Since the actual instruction work of the College calls for the expenditures of our entire income received from students' fees, it follows that we are compelled, like other schools, to seek other sources of income for meeting unusual expenses.

There are also a number of ways in which comparatively small contributions will be immediately productive of great good in specific directions, and several of these are discussed below.

## LIBRARY MAINTENANCE

The library facilities required by men engaged in advanced studies are necessarily much more extensive than those now provided by the College. The research work in which such men will engage will call for a full supply of works of reference, not only in pharmaceutical subjects, but in the sciences contributory to pharmacy. Generous friends of the College, and one such in particular, have made frequent and extensive contributions to the library, but it is highly desirable that an endowment be established that will yield a permanent annual fund of \$500 for such a purpose.



## APPARATUS

The College, thanks to the generosity of the late Mr. Edward Kemp, possesses a splendid working equipment of physical apparatus, suitable for the ordinary purposes of pharmaceutical education. The advanced work of graduate students will require not only extensive additions, but continuous expenditures for new designs in order to keep pace with discovery and improvement.

An endowment of from \$5,000 to \$10,000 would admirably meet this demand.

## MUSEUM

With the exception of the National Museum at Washington, there is no extensive pharmaceutical or materia medica museum in this country. Small museums exist in Philadelphia, Detroit, Cincinnati, at the New York Botanical Garden and elsewhere, but nowhere is there a museum properly comparable with those in London and Berlin. Civic pride, if no other consideration, should suffice to secure the establishment in New York City of a museum proportionate with the importance of the city as the port of entry for more than three fourths of the drugs received into the United States. There are, however, other considerations of far greater importance. Scarcely a week passes without more than one inquiry from importers, brokers or merchants, and even from the city and Federal departments, for unobtainable information concerning commercial articles of this class.

There should be some institution to which such inquiries could turn with reasonable certainty of an accurate reply. Furthermore, the ambition to supply Doctors of Pharmacy who are competent to meet all demands made upon them, even for the discovery of desired unknown facts, renders it imperative that a storehouse of materials for investigation should be available. The ideal location for such a museum is with the department of pharmacy of a strong and active university.

Such a museum involves more than a mere collection of labeled articles in cases. It calls for a comprehensive plan providing for future accessions, and for investigating the utility of new products. This calls for a curator with an encyclopedic knowledge of the subject, and qualified to pursue original researches. Such an institution, thus equipped, could provide a continuous supply of original contributions in economic botany, connected upon the one side with sources of sound scientific information and authentication, and upon the other with the material welfare of our people.

A more creditable and permanent monument to its donor could scarcely be conceived. To establish such a museum, and also to provide properly for its care and maintenance, would require from \$100,000 to \$150,000.

## ADDITIONAL PROFESSORSHIPS

The establishment of a number of lecture courses to be served by specialists in their respective subjects is an essential requisite in the work of the final years of an advanced course. Perhaps the most important of such subjects is the

history of chemistry and pharmacy. The provision of even a short series of lectures would do much to point the way to investigation in the light of former achievement.

Those desiring to contribute toward any of the purposes named, or others in which they may be interested, will upon request be supplied with a form which may be used for the purpose.

## REGISTER OF GRADUATES

### BACHELOR OF SCIENCE, OCTOBER 30, 1929

Tong, Ah Yung  
1404 Lusitania Street, Honolulu, P. I.  
(1)

### PHARMACEUTICAL CHEMISTS, OCTOBER 30, 1929

Appelbaum, Joseph  
147 Schenectady Avenue, Brooklyn, N. Y.  
Carnot, Edward Joseph  
345 West 86th Street, New York, N. Y.  
Ginn, Barnett  
126 East 7th Street, New York, N. Y.  
Glantz, Milton  
355 Second Avenue, New York, N. Y.  
Glassman, Louis H.  
101 Straight Street, Paterson, N. J.  
Groves, Reginald Doyle  
415 Spooner Avenue, Plainfield, N. J.  
Pitchinick, Bernard  
1737 Pitkin Avenue, Brooklyn, N. Y.  
Schmurok, Leon  
19 Sterling Place, Edgewater, N. J.  
Schopmann, William Henry  
103 Grace Street, Jersey City, N. J.  
Teicher, Milton  
527 West 135th Street, New York, N. Y.  
Weber, Jacob  
1059 Glenmore Avenue, Brooklyn, N. Y.  
(11)

### BACHELORS OF SCIENCE, JUNE 4, 1929

Bevacqua, Alfred  
375 Baldwin Avenue, Jersey City, N. J.  
Brooks, Vernon Hazen  
25 Maple Place, Portchester, N. Y.  
Lippe, Abraham Alfred  
540 Jerome Street, Brooklyn, N. Y.  
Schultz, Joseph  
990 Aldus Street, New York, N. Y.  
Seng, John Warren  
107 Carroll Place, New Brunswick, N. J.  
Simone, Catherine Bellina  
Croton-on-Hudson, N. Y.  
Stauber, Robert August  
R. D. 15, Groton, N. Y.  
Steinberg, Abraham  
620 Riverdale Avenue, Brooklyn, N. Y.

(8)

### PHARMACEUTICAL CHEMISTS, JUNE 4, 1929

Aaronson, Irving  
100 Humboldt Street, Brooklyn, N. Y.  
Alderman, George Joseph  
214 New Main Street, Yonkers, N. Y.

Amatucci, Laura  
1860 84th Street, Brooklyn, N. Y.  
Bauso, Felix  
8315 Woodhaven Boulevard, Queens, N. Y.  
Beck, Louis  
Cresskill, N. J.  
Berry, Isadore  
76 Morgan Street, Springfield, Mass.  
Biberfeld, Abraham Louis  
150 17th Street, West New York, N. J.  
Brown, Gustave Harold  
884 Riverside Drive, New York, N. Y.  
Bulda, Frank  
262 Fifth Avenue, Astoria, N. Y.  
Caniparoli, Olga  
2529 Cambreling Avenue, New York, N. Y.  
Carbonaro, John  
2 McMaster Street, Auburn, N. Y.  
Cherr, George  
1703 Washington Avenue, New York, N. Y.  
Cohen, Irving Samuel  
1121 Tinton Avenue, New York, N. Y.  
Costarella, Renato  
5822 Fifteenth Avenue, Brooklyn, N. Y.  
Davenport, Renald  
Sweet Valley, Pa.  
Dayharsh, Carroll Wells  
105 Kensington Place, Syracuse, N. Y.  
Del Vecchio, Henry William  
1366 73d Street, Brooklyn, N. Y.  
Edelstein, Victor Hugo  
62 East 94th Street, New York, N. Y.  
Edgars, Norman Kenneth  
85 Hillside Avenue, Tenafly, N. J.  
Ellena, Aldo Joseph  
180 South Bergenline Avenue, Union City, N. J.  
Erdtrachter, Jules  
229 5th Street, New York, N. Y.  
Fabrikant, Lawrence  
1986 Clinton Avenue, New York, N. Y.  
Falk, Herbert Bernard  
709 East 24th Street, Paterson, N. J.  
Fishbein, Isadore Leo  
70 Carroll Street, Paterson, N. J.  
Fisher, Jennie  
314 Bay 10th Street, Brooklyn, N. Y.  
Freedman, Ray Morris  
7 West Glen Street, Glen Cove, N. Y.  
Fries, Harry  
1049 East 13th Street, Brooklyn, N. Y.  
Ganeless, Percy  
105 North Main Street, Liberty, N. Y.  
Gatov, Louis  
1749 Grand Concourse, New York, N. Y.

- Gerken, Frederick  
133-08 Rockaway Boulevard, South Ozone  
Park, N. Y.
- Glickfield, Peter Joel  
14 Cecil Avenue, Glen Cove, N. Y.
- Gorenberg, David  
690 East 158th Street, New York City, N. Y.
- Grasser, George Joseph  
22 Florida Avenue, Arrochar, N. Y.
- Greenfield, Joseph  
222 East 124th Street, New York, N. Y.
- Gulker, Jacob Henry  
174 Clinton Street, New York, N. Y.
- Guss, Isidore Edward  
1425 Eastern Parkway, Brooklyn, N. Y.
- Hands, Quentin Roosevelt  
2533 Seventh Avenue, New York, N. Y.
- Harrison, Benjamin  
197 Floyd Street, Brooklyn, N. Y.
- Hodes, Julius  
53 East 182d Street, New York, N. Y.
- Hoyte, Lewis Prescod  
169 St. Nicholas Avenue, New York, N. Y.
- Ingegno, Henry Peter  
413 2d Street, Brooklyn, N. Y.
- Iozzia, Theresa  
127 Beech Street, Paterson, N. J.
- Ironson, Hyman  
1265 Gerard Avenue, New York, N. Y.
- Isgar, William  
95 Barrett Street, Brooklyn, N. Y.
- Jae, Hok Yin  
522 West 147th Street, New York, N. Y.
- James, Edith Genevieve  
588 Lenox Avenue, New York, N. Y.
- Kadish, Frank Bernard  
21 South Dean Street, Englewood, N. J.
- Kaplan, Aaron  
93 Granite Street, Brooklyn, N. Y.
- Kaplan, Herbert Benjamin  
185 Bergen Avenue, Jersey City, N. J.
- Kerner, Emanuel Matthew  
1968 68th Street, Brooklyn, N. Y.
- Kolk, Martin Irving  
1550 50th Street, Brooklyn, N. Y.
- La Placa, Francis A.  
316 Monroe Street, Hoboken, N. J.
- Levy, Alexander  
556 Ashford Street, Brooklyn, N. Y.
- Levy, Julian S.  
436 Eastern Parkway, Brooklyn, N. Y.
- Lipkowitz, Irving Myron  
690 Monroe Street, Brooklyn, N. Y.
- Lo Russo, Joseph Franklyn  
1883 West 13th Street, Brooklyn, N. Y.
- Lubin, Abraham Allan  
1314 Mulberry Street, Scranton, Pa.
- Malament, Louis  
316 South 4th Street, Brooklyn, N. Y.
- Mallon, Milton J.  
372 Snediker Avenue, Brooklyn, N. Y.
- Margolies, Raymond Nathan  
119 Lackawanna Avenue, Olyphant, Pa.
- Megibow, Louis  
314 28th Street, Woodcliff, N. J.
- Miceli, Anthony William *VICTOR*  
273 Ninth Avenue, New York, N. Y.
- Molbegat, Abner Irving  
114-59 Farmers Boulevard, St. Albans, N. Y.
- Oaklander, Isidore  
1315 Bronx River Avenue, New York, N. Y.
- Ortega, Louis Bernard  
557 West 148th Street, New York, N. Y.
- Patrizio, Silvio  
108-21 Union Hall Street, Jamaica, N. Y.
- Pekarsky, Benjamin  
1965 Bryant Avenue, New York, N. Y.
- Pillone, Maria  
Lincoln Avenue, Ridgefield Park, N. J.
- Race, Clarence Karst  
45 Third Avenue, Bay Shore, N. Y.
- Reale, Victor Anthony  
1569 78th Street, Brooklyn, N. Y.
- Reichman, Frances  
648 Faile Street, New York, N. Y.
- Rosenberg, Abraham  
4 Hinman Street, Middle Village, N. Y.
- Rosenberg, Isidor  
197 10th Street, Long Island City, N. Y.
- Rossi, Filomena Florence  
30 Macdougall Street, New York, N. Y.
- Rubenstein, Louis J.  
85 Powell Street, Brooklyn, N. Y.
- Schlagel, Charles Jacob  
18 Oak Street, Beacon, N. Y.
- Schmid, Frederick William  
Hillside Avenue, Hillside, N. J.
- Schubert, Georgianna Agnes  
21 East High Street, Bound Brook, N. J.
- Schuchman, David  
210 Foster Avenue, Brooklyn, N. Y.
- Seitzman, Max  
193 Howe Avenue, Passaic, N. J.
- Skasko, Stephen  
01 Fairfield Avenue, Danbury, Conn.
- Soracco, Frank  
15 South Main Street, Liberty, N. Y.
- Sorensen, Harry C.  
517 East 26th Street, Brooklyn, N. Y.
- Sparacio, Carmel John  
30 Harrison Avenue, Monson, Mass.
- Spitz, Morris Solomon  
196 West Broadway, Paterson, N. J.
- Sporn, Arthur  
431 East 83d Street, New York, N. Y.

- Steiner, David  
55 East 88th Street, New York, N. Y.
- Stopen, Theodore  
528 East 142d Street, New York, N. Y.
- Sugarman, Benjamin  
1 Grant Place, Weehawken, N. J.
- Taylor, Esser Ormsby  
433 South Seventh Avenue, Mount Vernon,  
N. Y.
- Teichholz, Bernard S.  
309 Madison Street, Passaic, N. J.
- Tisch, Leo  
1411 Madison Avenue, New York, N. Y.
- Wagman, Meyer  
651 East 220th Street, New York, N. Y.
- Wagner, Harry Frederick  
8967 214th Street, Queens Village, N. Y.
- Waltz, Hugo Joseph  
264 Morris Street, Union City, N. J.
- Wang, Sidney R.  
683 Pennsylvania Avenue, Brooklyn, N. Y.
- Wilentz, Alexander  
28 West Palisade Avenue, Englewood, N. J.
- Ya Deau, George James  
23 West Ruby Avenue, Palisades Park, N. J.
- Yukelson, Arthur William  
1209 Westchester Avenue, New York, N. Y.
- Zunz, Edward  
242 28th Street, Union City, N. J.
- Zweig, Arthur  
8 Pinehurst Avenue, New York, N. Y.
- (101)

## REGISTER OF STUDENTS, SESSION OF 1929-1930

## GRADUATE COURSE

- Kennedy, Margaret H. Cambridge, N. Y.
- Steinberg, Abraham  
465 Hinsdale Street, Brooklyn, N. Y.
- (2)

## FOURTH YEAR UNIVERSITY CLASS

- Aaronson, Irving  
100 Humboldt Street, Brooklyn, N. Y.
- Brown, Gustave Harold  
884 Riverside Drive, New York, N. Y.
- Bulda, Frank  
262 Fifth Avenue, Astoria, N. Y.
- Caniparoli, Olga  
1991 Bronxdale Avenue, New York, N. Y.
- Del Vecchio, Henry William  
1366 73d Street, Brooklyn, N. Y.
- Dick, Lester Colby  
98 Division Street, Keyport, N. J.
- Edelstein, Victor Hugo  
601 West 149th Street, New York, N. Y.
- Falk, Herbert Bernard  
709 East 24th Street, Paterson, N. J.
- Fisher, Jennie  
314 Bay 10th Street, Brooklyn, N. Y.
- Givens, Horace T. F.  
6 Cottage Place, Freehold, N. J.
- Glantz, Milton  
355 Second Avenue, New York, N. Y.
- Jae, Hok Yin  
Canton, China
- Kaplan, Herbert Benjamin  
12 Audubon Avenue, Jersey City, N. J.
- Rockowitz, Louis  
1636 76th Street, Brooklyn, N. Y.
- Rubenstein, Louis J.  
85 Powell Street, Brooklyn, N. Y.

- Schmid, Frederick William  
Box 286, Hillsdale Avenue, Hillsdale, N. J.
- Topilow, Jacob  
155 West 29th Street, Bayonne, N. J.
- Tususian, Nishan  
2423 Bathgate Avenue, New York, N. Y.
- Yukelson, Arthur William  
1209 Westchester Avenue, New York, N. Y.
- (19)

## THIRD YEAR UNIVERSITY CLASS

- Benjamin, Irving  
35 Brookside Place, New Rochelle, N. Y.
- Berest, Joseph  
2435 Creston Avenue, New York, N. Y.
- Betzer, Clifford William  
194-54 114th Road, St. Albans, N. Y.
- Canepa, John Joseph  
111 Anderson Avenue, Scarsdale, N. Y.
- Carlat, Bernard  
1914 East 18th Street, Brooklyn, N. Y.
- D'Avella, Bernardino Johnson  
167 Parker Street, Newark, N. J.
- de Domenico, Ida  
287 Bleecker Street, New York, N. Y.
- Eisenberg, Julius  
Parksville, N. Y.
- Fisher, Sidney Alexander  
701 Crotona Park North, New York, N. Y.
- Gaer, Bertram  
641 Lafayette Avenue, Brooklyn, N. Y.
- Henkin, Samuel  
1124 Elder Avenue, New York, N. Y.
- Jacobs, Julius  
1281 Eastern Parkway, Brooklyn, N. Y.
- Keilin, Harry  
2800 Bronx Park East, New York, N. Y.

- Kucker, George  
1114 Magnolia Avenue, Elizabeth, N. J.
- Lichtenberg, Raymond  
615 Hudson Street, Hoboken, N. J.
- Massarsky, Solomon  
16 2d Street, Weehawken, N. J.
- Montesano, Benjamin  
9 Green Street, Paterson, N. J.
- Moskowitz, Herman  
40 Birch Street, Mount Vernon, N. Y.
- Muller, Alfred Carl  
18-11 147th Street, Whitestone, N. Y.
- Nochimow, Eliezer  
489 Willoughby Avenue, Brooklyn, N. Y.
- Novins, Henry  
523 West 138th Street, New York, N. Y.
- Pagano, Alphonse Frederick  
213 Van Brunt Street, Brooklyn, N. Y.
- Peskin, Benjamin  
936 Intervale Avenue, New York, N. Y.
- Sacharow, Samuel Sachne  
7111 Twentieth Avenue, Brooklyn, N. Y.
- Sadinsky, Hyman Benjamin  
60 Maple Street, Norwich, Conn.
- Seldeen, Israel Barnett  
204 Broadway, Amityville, N. Y.
- Seligman, Morris William  
317 East 27th Street, New York, N. Y.
- Simcovitz, Robert  
848 Belmont Avenue, Springfield, Mass.
- Stephanou, Eli  
33 Thames Street, Norwich, Conn.
- Stevens, Eli  
450 Bay Ridge Avenue, Brooklyn, N. Y.
- (28)
- THIRD YEAR COLLEGE CLASS
- Abrams, Michael Irving  
428 26th Street, Guttenberg, N. J.
- Ackerman, Ruth  
3271 Westchester Avenue, New York, N. Y.
- Allegra, Frank  
25-76 44th Street, Astoria, N. Y.
- Alperstein, Hyman Meyer  
216 East 10th Street, New York, N. Y.
- Anderson, Arthur Gustave  
4 Travers Avenue, Mamaroneck, N. Y.
- Asbell, Joseph  
1420 Nostrand Avenue, Brooklyn, N. Y.
- Bacchiani, Torquato  
211 East 57th Street, New York, N. Y.
- Bambara, Aurelius John  
1271 42d Street, Brooklyn, N. Y.
- Bardfeld, Gustave  
9720 Jamaica Avenue, Woodhaven, N. Y.
- Bartha, John Anthony, Jr.  
165 Hamilton Street, New Brunswick, N. J.
- Bauer, Max  
400 8th Street, West New York, N. J.
- Bauer, Paul Edgar  
249 Post Avenue, Westbury, N. Y.
- Berkowitz, Bernard  
109 Eldridge Street, New York, N. Y.
- Beyer, Isadore  
Spring Glen, N. Y.
- Bittar, Albert  
5101 Sixth Avenue, Brooklyn, N. Y.
- Blatt, Jacob  
3540 Rochambeau Avenue, New York, N. Y.
- Blumberg, Lester  
180 Danforth Avenue, Jersey City, N. J.
- Boxer, Meyer  
131 Rockaway Parkway, Brooklyn, N. Y.
- Bronzo, Ralph  
2070 West 9th Street, Brooklyn, N. Y.
- Bussle, Harry  
485 East 173d Street, New York, N. Y.
- Calabrese, Savino Daniel  
826 Second Avenue, New York, N. Y.
- Capobianco, Dominick Thomas  
506 Brook Avenue, New York, N. Y.
- Cassara, Anthony V.  
1121 40th Street, Brooklyn, N. Y.
- Charnes, Randolph  
495 East 174th Street, New York, N. Y.
- Chernoff, Max  
607 Hopkinson Avenue, Brooklyn, N. Y.
- Cimino, John Anthony  
1049 67th Street, Brooklyn, N. Y.
- Cipnic, Herman  
111-11 Liberty Avenue, Richmond Hill, N. Y.
- Cohen, Bernard Martin  
2001 Douglass Street, Brooklyn, N. Y.
- Cohen, Harry  
561 West 163d Street, New York, N. Y.
- Cohen, Henry  
325 Wallabout Street, Brooklyn, N. Y.
- Cohen, Isaac  
591 East 141st Street, New York, N. Y.
- Cohen, Sidney  
670 Garden Street, New York, N. Y.
- Cohen, William  
726 Rockaway Avenue, Brooklyn, N. Y.
- Cohler, Meyer  
537 West 141st Street, New York, N. Y.
- Coppola, Angelo  
33-48 84th Street, Jackson Heights, N. Y.
- Costabile, Hugo  
872 East 163d Street, New York, N. Y.
- Crafa, Mary P.  
9412 Van Wyck Avenue, Richmond Hill, N. Y.
- Criscuolo, Andrew  
792 Grand Avenue, New Haven, Conn.
- Davis, Benjamin Richard  
3723 Eighteenth Avenue, Brooklyn, N. Y.

- Decter, Jacob  
11 McDonough Street, Brooklyn, N. Y.
- Denker, Benjamin  
1725 Fulton Avenue, New York, N. Y.
- Diamondstein, Joseph  
1506 Walton Avenue, New York, N. Y.
- Dicker, Morris  
237 East 5th Street, New York, N. Y.
- Dier, Philip  
2840 East 6th Street, Brighton Beach, N. Y.
- Dinin, Jack  
139 Division Street, New York, N. Y.
- Dogan, Max  
1594 East 10th Street, Brooklyn, N. Y.
- Dwoskin, Barney William  
3001 West 24th Street, Coney Island, N. Y.
- Ellinson, Barnett  
867 Crotona Park North, New York, N. Y.
- Epstein, Samuel Irving  
2067 Haviland Avenue, New York, N. Y.
- Failla, Silvio Joseph  
740 Main Street, North Bergen, N. J.
- Falk, Benjamin  
312 Madison Street, New York, N. Y.
- Fazio, Ignatius  
1618 77th Street, Brooklyn, N. Y.
- Feldman, Morris  
120 Bristol Street, Brooklyn, N. Y.
- Fermaglich, Louis Joseph  
67 Sheriff Street, New York, N. Y.
- Fialkow, Benjamin  
547 Howard Avenue, Brooklyn, N. Y.
- Firemark, Samuel  
107-57 Union Hall Street, Jamaica, N. Y.
- Flaherty, Sister Mary Oswald  
Marywood College, Scranton, Pa.
- Flaumenbaum, Irving  
1454 East 14th Street, Brooklyn, N. Y.
- Fleissig, Arthur  
378 East 10th Street, New York, N. Y.
- Flexer, Isidore  
581 George Street, New Haven, Conn.
- Florence, Paul Adrien  
213 Pomander Road, Mineola, N. Y.
- Form, Milton  
1828 Myrtle Avenue, Brooklyn, N. Y.
- Frager, Joseph Saul  
27 Washington Place, Newburgh, N. Y.
- Frankel, Isidore Isaac  
156 Second Avenue, New York, N. Y.
- Frankfort, Morris  
1980 East 26th Street, Brooklyn, N. Y.
- Fried, Emanuel  
1584 East 172d Street, New York, N. Y.
- Friedberg, Irving  
522 Christopher Avenue, Brooklyn, N. Y.
- Gellar, Henry  
1003 Clarkson Avenue, Brooklyn, N. Y.
- Getzlek, George  
Richfield Springs, N. Y.
- Gitlin, Benjamin  
274 East 175th Street, New York, N. Y.
- Glick, Percy  
2716 Hubbard Street, Brooklyn, N. Y.
- Gluck, Morton  
1560 Amsterdam Avenue, New York, N. Y.
- Gold, Morris  
1096 West Farms Road, New York, N. Y.
- Goldfarb, Samuel  
630 West 172d Street, New York, N. Y.
- Gralewski, Walter Joseph  
757 41st Street, Brooklyn, N. Y.
- Greenstein, Edward  
361 Van Sicklen Avenue, Brooklyn, N. Y.
- Gressey, Henry  
31-14 36th Street, Astoria, N. Y.
- Gualiaro, Vincent Francis  
28 Harrison Avenue, Monson, Mass.
- Haimowitz, Benjamin  
23 Tapscott Street, Brooklyn, N. Y.
- Hamburg, David  
1011 Freeman Street, New York, N. Y.
- Hirschmann, Jonas  
145 Belmont Avenue, Jersey City, N. J.
- Holzman, Jack  
1200 First Avenue, New York, N. Y.
- Huber, Henry  
5 3d Street, Weehawken, N. J.
- Huger, Charles  
1421 Crotona Avenue, New York, N. Y.
- Hurwitz, Myer  
1402 South McBride Street, Syracuse, N. Y.
- Jackson, Joseph  
948 Tiffany Street, New York, N. Y.
- Jurow, Louis  
Monticello, N. Y.
- Kanfer, Daniel  
140 Wilson Street, Brooklyn, N. Y.
- Kaufman, George Sam  
569 Saratoga Avenue, Brooklyn, N. Y.
- Klein, Joseph  
1532 West 10th Street, Brooklyn, N. Y.
- Klorman, Joseph  
152 East 96th Street, Brooklyn, N. Y.
- Kobelivker, Joseph  
734 Saratoga Avenue, Brooklyn, N. Y.
- Koretsky, Leon  
769 Willoughby Avenue, Brooklyn, N. Y.
- Koslowsky, David  
1967 71st Street, Brooklyn, N. Y.
- Kosowsky, Milton Stanley  
52 Summer Street, New London, Conn.
- Kossow, Solomon  
81 East 108th Street, New York, N. Y.
- Kressel, Marcus  
50 East 3d Street, New York, N. Y.
- Kyzer, Anton Louis  
30-70 45th Street, Astoria, N. Y.

- Lacovara, George  
754 East 215th Street, New York, N. Y.
- Lauria, Anthony  
460 Fairmount Avenue, Jersey City, N. J.
- Lawentman, Julius  
115 East 114th Street, New York, N. Y.
- Lerman, Nathan  
Colchester, Conn.
- Lerner, Isadore  
50 East 3d Street, New York, N. Y.
- Levine, Theodore  
371 Crown Street, Brooklyn, N. Y.
- Liberman, Joseph Rudolph  
1061 Intervale Avenue, New York, N. Y.
- Liebowitz, Harry C.  
1154 College Avenue, New York, N. Y.
- Lindheim, Michael  
4 Blake Avenue, Brooklyn, N. Y.
- Lissman, Harold  
1815 Prospect Avenue, New York, N. Y.
- Loscalzo, Joseph V.  
125 46th Street, Corona, N. Y.
- McDavid, Sydney Sigelman Alonzo  
801 Freeman Street, New York, N. Y.
- Maggio, John  
107 Ridgewood Avenue, Brooklyn, N. Y.
- Maisel, Milton  
2025 Regent Place, Brooklyn, N. Y.
- Mandel, Charles  
341 Wythe Avenue, Brooklyn, N. Y.
- Mandelblit, Morris M.  
893 Lafayette Avenue, Brooklyn, N. Y.
- Manfré, Stephen  
204 Baltic Street, Brooklyn, N. Y.
- Mariani, Faustina  
3350 White Plains Avenue, New York, N. Y.
- Marion, Bernard  
607 West 191st Street, New York, N. Y.
- Marra, Joseph Richard  
11 Ohio Avenue, Port Washington, N. Y.
- Marshall, Lillian  
851 Tinton Avenue, New York, N. Y.
- Matragrano, Anthony John  
Bedford Hills, N. Y.
- Matthias, Eulalie Ravina  
226 West 123d Street, New York, N. Y.
- Mazie, Jack  
1061 Hall Place, New York, N. Y.
- Mazur, Samuel  
359 Madison Street, New York, N. Y.
- Meiselman, Harold Engel  
9 Northern Avenue, New York, N. Y.
- Miller, Bernard  
1372 Grant Avenue, New York, N. Y.
- Millner, Samuel  
73 Grafton Street, Brooklyn, N. Y.
- Mininberg, Harry  
909 Kelly Street, New York, N. Y.
- Montesano, Benjamin  
9 Green Street, Paterson, N. J.
- Mordente, Constance Florence  
1127 Noble Avenue, New York, N. Y.
- Mordente, Josephine  
1127 Noble Avenue, New York, N. Y.
- Moroch, David  
2116 66th Street, Brooklyn, N. Y.
- Murdock, Peter C.  
25 Amsterdam Place, Mount Vernon, N. Y.
- Mussawir, Alfred George  
436 45th Street, Brooklyn, N. Y.
- Naftal, Benjamin Harold  
329 East 94th Street, New York, N. Y.
- Napoliello, Joseph Francis  
21 Grace Street, Jersey City, N. J.
- Nemiroff, Max Milton  
1222 45th Street, Brooklyn, N. Y.
- Nestampower, Morris  
485 East 95th Street, Brooklyn, N. Y.
- Nieparent, Morris  
63 East 118th Street, New York, N. Y.
- Orkand, Sidney  
2471 Morris Avenue, New York, N. Y.
- Paley, Jacob  
102-44 Jamaica Avenue, Richmond Hill, N. Y.
- Papalinsky, Morris  
1001 Lincoln Place, Brooklyn, N. Y.
- Pekarsky, Morris  
14 Woodside Avenue, Brooklyn, N. Y.
- Peltz, Phillip William  
319 27th Street, Newport News, Va.
- Platt, Max  
953 East 174th Street, New York, N. Y.
- Posner, Albert Human  
923 Fox Street, New York, N. Y.
- Pospisil, Rudolph Joseph  
30-70 32d Street, Astoria, N. Y.
- Rabinowitz, Kalman  
236 Madison Street, New York, N. Y.
- Ramo, Louis  
34 St Marks Avenue, Rockville Center, N. Y.
- Reich, Bernard  
163 Smith Street, Brooklyn, N. Y.
- Reife, William  
1023 Hopkinson Avenue, Brooklyn, N. Y.
- Reisch, George F.  
60 East Palisade Boulevard, Palisade Park,  
N. J.
- Rende, Alfonso Louis  
723 East 229th Street, New York, N. Y.
- Robinson, Abraham  
237 Hart Street, Brooklyn, N. Y.
- Ronick, Charles  
1251 Wheeler Avenue, New York, N. Y.
- Ronsheim, Julian  
808 West End Avenue, New York, N. Y.



- Rosenberg, David  
Apt. E 63, 128 Goerck Street, New York, N. Y.
- Rosenberg, Hyman  
387 Williams Avenue, Brooklyn, N. Y.
- Rosenberg, Irving  
87 Siegel Street, Brooklyn, N. Y.
- Rosenberg, Isaac  
1340 Grant Avenue, New York, N. Y.
- Rosenberg, Samuel  
1175 East 9th Street, Brooklyn, N. Y.
- Rosenman, Herman  
610 Concord Avenue, New York, N. Y.
- Rosenthal, William  
55 West 110th Street, New York, N. Y.
- Rosmosky, Abraham  
27 East 110th Street, New York, N. Y.
- Rothbaum, Milton  
2800 Bronx Park East, New York, N. Y.
- Rothberg, Philip  
1566 St Marks Avenue, Brooklyn, N. Y.
- Rothman, Abraham Herbert  
1335 College Avenue, New York, N. Y.
- Rovner, Louis  
416 Henry Street, Brooklyn, N. Y.
- Rubenstein, Arthur  
505 Essex Street, Brooklyn, N. Y.
- Rubin, Benjamin  
493 Second Avenue, New York, N. Y.
- Rubin, Harold  
870 Riverside Drive, New York, N. Y.
- Safarik, Mildred Robas  
95 Main Street, East Rockaway, N. Y.
- Saltzman, David  
108 Moore Street, Brooklyn, N. Y.
- Saperstein, Milton  
1519 Plimpton Avenue, New York, N. Y.
- Schechter, Hyman  
418 East 5th Street, New York, N. Y.
- Schechter, Morris  
348 East 9th Street, New York, N. Y.
- Scheer, John Jonas  
1615 Townsend Avenue, New York, N. Y.
- Scher, Wilfred  
1157 Manor Avenue, New York, N. Y.
- Scherer, Paul  
126 East 2d Street, New York, N. Y.
- Schleider, Meyer K.  
122 West 55th Street, Bayonne, N. J.
- Schneck, Max R.  
2086 Bronx Park East, New York, N. Y.
- Scholefield, Charles Wesley  
23 Ralph Street, Beacon, N. Y.
- Schulman, Solomon  
814 East 166th Street, New York, N. Y.
- Schur, Sidney  
2012 East 13th Street, Brooklyn, N. Y.
- Schwartz, Hyman  
819 East 168th Street, New York, N. Y.
- Schwartz, Joseph George  
250 East 30th Street, New York, N. Y.
- Scouras, Constantine  
29 West 65th Street, New York, N. Y.
- Shapiro, Daniel  
1518 East 172d Street, New York, N. Y.
- Sherman, Harold  
1448 Fifth Avenue, New York, N. Y.
- Shub, Abraham  
632 Vermont Street, Brooklyn, N. Y.
- Shucard, Jacob  
920 Stone Avenue, Brooklyn, N. Y.
- Siderman, Morris  
2784 East 7th Street, Brooklyn, N. Y.
- Siegel, Joseph  
Ferndale, N. Y.
- Siegel, Solomon  
512 East Taylor Street, Syracuse, N. Y.
- Silverman, Max  
646 Bradford Street, Brooklyn, N. Y.
- Silverstein, George Jeremiah  
12 Pinehurst Avenue, New York, N. Y.
- Singer, Max  
296 Delancey Street, New York, N. Y.
- Slobin, Jacob  
807 28th Street, Union City, N. J.
- Slutzkin, Frederick Israel  
759 East 155th Street, New York, N. Y.
- Smith, Van Roy  
Apt. 10, 130 West 142d Street, New York, N. Y.
- Spallucci, Michael  
516 Wheatland Avenue, Bound Brook, N. J.
- Spanier, Irving  
117 Clymer Street, Brooklyn, N. Y.
- Spetalnick, Max J.  
1245 Ward Avenue, New York, N. Y.
- Spirko, Stephen Michael  
5 Wilson Street, Jessup, Pa.
- Steinberg, Isidore  
1180 47th Street, Brooklyn, N. Y.
- Steiner, Elias  
880 East 178th Street, New York, N. Y.
- Stitzel, Louis  
308 East 6th Street, New York, N. Y.
- Stolper, Morris  
22 East 108th Street, New York, N. Y.
- Strauss, Morris  
104-06 East 2d Street, New York, N. Y.
- Thompson, Joseph Henry  
118 Eldridge Street, New York, N. Y.
- Tishler, George  
1593 Prospect Place, Brooklyn, N. Y.
- Tobias, Meyer  
537 Palisade Avenue, Jersey City, N. J.
- Troub, Louis  
1728 Sterling Place, Brooklyn, N. Y.
- Tunis, Philip  
212 East 105th Street, New York, N. Y.

Twersky, Mary  
3406 Thirty-first Avenue, Long Island City,  
N. Y.

Valerio, Leo Joseph  
345 West 21st Street, New York, N. Y.

Vasiliades, Angelo  
257 2d Street, Lakewood, N. J.

Webman, Larry  
402 South 2d Street, Brooklyn, N. Y.

Weidenbaum, Ralph  
248 East Houston Street, New York, N. Y.

Weinberg, Victor  
1611 St. Marks Avenue, Brooklyn, N. Y.

Weinstein, Louis  
1808 75th Street, Brooklyn, N. Y.

Weintraub, Hyman  
57 Suffolk Street, New York, N. Y.

Winokur, Aaron  
2223 Surf Avenue, Brooklyn, N. Y.

Wisztreich, Edward Odon  
1592 First Avenue, New York, N. Y.

Wollenberg, Hamilton  
1914 Nesmith Place, Astoria, N. Y.

Zeichner, Lewis Abraham  
1258 Fteley Avenue, New York, N. Y.

Zunin, Louis  
980 Sutter Avenue, Brooklyn, N. Y.

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## SECOND YEAR UNIVERSITY CLASS

Burch, Collingwood Vincent  
228 West 137th Street, New York, N. Y.

Cassano, Caesar  
2147 Washington Avenue, New York, N. Y.

Chesler, Morris  
4338 Gunther Avenue, New York, N. Y.

Cohen, Gertrude  
22 1st Street, Weehawken, N. J.

Fauci, Stephen Antonio  
1669 79th Street, Brooklyn, N. Y.

Fehder, Paul  
107-21 Union Hall Street, Jamaica, N. Y.

Feinberg, Solomon  
2820 West 36th Street, Coney Island, N. Y.

Gain, Ethel Annie Louise  
Jeffersonville, New York, N. Y.

Goldberg, Meyer  
1091 Longfellow Avenue, New York, N. Y.

Hoffman, Bernard William  
9127 St. Charles Court, Woodhaven, N. Y.

Levsky, William Samuel  
2818 Heath Avenue, New York, N. Y.

Lipschitz, Leo  
7007 Nineteenth Avenue, Brooklyn, N. Y.

Mar, George Kaye  
296 Ellen Street, Winnipeg, Canada

Marcus, Irving  
791 Troy Avenue, Brooklyn, N. Y.

Mehlsak, Harry Nathan  
1985 Creston Avenue, New York, N. Y.

Merring, Harry Louis  
35-68 North 163d Street, Flushing, N. Y.

Miller, Benjamin  
91 Center Street, Ellenville, N. Y.

Orfuss, Abraham Jack  
2920 West 27th Street, Brooklyn, N. Y.

Schwartz, Israel Charles  
3 Maniton Avenue, Poughkeepsie, N. Y.

Smith, Henry  
172-11 Highland Avenue, Brooklyn, N. Y.

Smith, Robert Jerome  
143 Albany Avenue, Brooklyn, N. Y.

Vigdarowitz, Martin  
65 East 99th Street, New York, N. Y.

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## SECOND YEAR COLLEGE CLASS

Abramson, Jacob  
15 Stevens Street, White Plains, N. Y.

Achiron, Harold  
54 Lewis Avenue, Brooklyn, N. Y.

Adelman, Rubin  
761 Elton Avenue, New York, N. Y.

Aloisi, Frank  
1226 Ward Avenue, New York, N. Y.

Anderson, Ometta Catharyn  
321 Edgecomb Avenue, New York, N. Y.

Armband, Max  
75 East 4th Street, New York, N. Y.

Arnowitz, Barnett  
600 West 169th Street, New York, N. Y.

Avstreich, Albert  
565 West 175th Street, New York, N. Y.

Barile, Emerico Alfred  
235 West 67th Street, New York, N. Y.

Bateman, Edward Henry  
36 North Street, Pulaski, N. Y.

Bauer, Charles William  
249 Post Avenue, Westbury, N. Y.

Beghin, Frank  
336 East 107th Street, New York, N. Y.

Belfer, Samuel  
1706 Nelson Avenue, New York, N. Y.

Belinsky, Benjamin  
62 East 119th Street, New York, N. Y.

Berkowitz, Aaron Joseph  
106 West 61st Street, New York, N. Y.

Berlin, Joseph  
106 Quincy Street, Passaic, N. J.

Berliner, Meyer  
Great Neck, N. Y.

Bernstein, Sydney  
2037 Hughes Avenue, New York, N. Y.

Birdslow, Kent Bishop  
Lacona, N. Y.

Blank, George  
1765 Walton Avenue, New York, N. Y.

- Bloom, Albert Sidney  
58 Fairmount Street, Norwich, Conn.
- Bloom, Isidore  
390 East 4th Street, New York, N. Y.
- Boghosian, Paul Der  
488 New York Avenue, Union City, N. J.
- Bookstaber, Leo  
32-42 33d Street, Long Island City, N. Y.
- Boxer, Louis  
427 East 170th Street, New York, N. Y.
- Braswell, James Le Roy  
265 Flatbush Avenue, Brooklyn, N. Y.
- Breimer, Julius Albert  
429 East 168th Street, New York, N. Y.
- Brown, Charles Lloyd  
2054 Fletcher Avenue, Fort Lee, N. J.
- Buono, Joseph  
30 Cornelia Street, New York, N. Y.
- Calabrese, Theodore Vincent  
3719 Foster Avenue, Brooklyn, N. Y.
- Calleo, Nicholas Benjamin  
22 Van Wort Place, Jersey City, N. J.
- Capillo, Joseph Bruno  
8717 94th Street, Woodhaven, N. Y.
- Caprio, Ralph  
140 Parker Street, Newark, N. J.
- Carpinelli, Michael Joseph  
281 Linden Avenue, Jersey City, N. J.
- Caruso, Mario  
491 Warren Street, Brooklyn, N. Y.
- Cassera, Grace Leona  
1531 68th Street, Brooklyn, N. Y.
- Catozzio, Peter  
729 Adam Street, West New York, N. J.
- Cecere, Natale  
431 28th Street, Woodcliff, N. J.
- Charlip, Abraham M.  
877 Rutland Road, Brooklyn, N. Y.
- Chefetz, Hyman Herman  
540 East 5th Street, New York, N. Y.
- Chernow, Jack  
1162 52d Street, Brooklyn, N. Y.
- Chomsky, Isidore  
1443 38th Street, Brooklyn, N. Y.
- Christman, Frederick Walter  
34 Oak Street, Valley Stream, N. Y.
- Cohen, Abe  
2147 Washington Avenue, New York, N. Y.
- Cohen, Alexander  
470 Sheffield Avenue, Brooklyn, N. Y.
- Cohen, Charles  
111 Tudor Place, New York, N. Y.
- Cohen, David  
100 Wegman Parkway, Jersey City, N. J.
- Cohen, Frank  
2216 Douglass Street, Brooklyn, N. Y.
- Cohen, Herman  
1662 45th Street, Brooklyn, N. Y.
- Cohen, Joseph  
110 Jersey Avenue, Port Jervis, N. Y.
- Cohen, Max  
61 East 99th Street, New York, N. Y.
- DeMucci, Frank Robert  
40-36 97th Street, Corona, N. Y.
- Dworkowitz, Jesse  
420 Avenue S, Brooklyn, N. Y.
- Edelstein, Isadore  
305 East Mine Street, Hazleton, Pa.
- Eichen, Nathan  
180 Mercer Street, Jersey City, N. J.
- Eichler, Julian  
31-11 85th Street, Jackson Heights, N. Y.
- Eichner, Jerome  
51 Farrington Street, Flushing, N. Y.
- Eisenberg, Robert  
1424 Parker Street, New York, N. Y.
- Epstein, Marvin Maurice  
110 Walnut Street, Springfield, Mass.
- Epstein, Paul  
72 Jackson Avenue, Jersey City, N. J.
- Evans, Max  
364 Monroe Street, Brooklyn, N. Y.
- Feigelson, Irving  
2838 West 19th Street, Coney Island, N. Y.
- Feinberg, Irving Bernard  
469 Cleveland Street, Brooklyn, N. Y.
- Ferrara, Vincent  
208 5th Street, Jersey City, N. J.
- Fialk, Robert  
198 Hopkins Avenue, Jersey City, N. J.
- Fichiera, Michael  
1511 Castle Hill Avenue, New York, N. Y.
- Ficks, Jacob  
8675 Bay 16th Street, Brooklyn, N. Y.
- Fishberg, Murray Leonard  
153 Morton Place, New York, N. Y.
- Fitzer, Aaron  
1166 Theriot Avenue, New York, N. Y.
- Frank, Jacob  
493 East 135th Street, New York, N. Y.
- Frankel, David  
1156 Eastern Parkway, Brooklyn, N. Y.
- Frankel, Leonard Robert  
764 Trinity Avenue, New York, N. Y.
- Frankel, Sidney  
744 Hudson Avenue, West New York, N. J.
- Freed, Israel  
285 Van Buren Street, Brooklyn, N. Y.
- Friedberg, Alexander  
61 East 95th Street, New York, N. Y.
- Friedland, Peter Robert  
3999 Dickinson Avenue, New York, N. Y.
- Gaal, Albert George  
574 Manhattan Avenue, Brooklyn, N. Y.
- Garrambone, Carmelo Joseph  
25-27 33d Street, Long Island City, N. Y.

- Geller, Isidore Benjamin  
1218 Hoe Avenue, New York, N. Y.
- Gellis, Joseph  
60 Trenton Avenue, White Plains, N. Y.
- Gerson, Alex  
557 Kosciusko Street, Brooklyn, N. Y.
- Ginsberg, Mrs. Asna Mendelevska  
53 West Tremont Avenue, New York, N. Y.
- Gise, Meyer  
1862 75th Street, Brooklyn, N. Y.
- Giuliani, Arthur J.  
12 Yale Avenue, Baldwin, N. Y.
- Glazer, Harry  
1857 Washington Avenue, New York, N. Y.
- Glick, William Joseph  
1649 Coventry Road, Cleveland, Ohio
- Gline, William  
1701 Eastburn Avenue, New York, N. Y.
- Godlin, Abraham  
Woodbourne, N. Y.
- Gold, Joseph  
1434 Bryant Avenue, New York, N. Y.
- Goldstein, Martin  
505 Bergen Avenue, Jersey City, N. J.
- Goldstein, Max  
871 Longwood Avenue, New York, N. Y.
- Gottlieb, George  
310 East 30th Street, New York, N. Y.
- Grant, Raymond Lorenzo  
120 Wait Avenue, Ithaca, N. Y.
- Greenfader, Morris Benjamin  
2223 62d Street, Brooklyn, N. Y.
- Gutes, Morris Charles  
17-27 Van Sicklen Avenue, Brooklyn, N. Y.
- Halper, Arthur Matthews  
1055 University Avenue, New York, N. Y.
- Halper, Lewis  
1208 Maple Avenue, Peekskill, N. Y.
- Halperin, Irving Max  
419 Ocean Avenue, Jersey City, N. J.
- Hamann, George Peter Dietrich  
398 Himrod Street, Brooklyn, N. Y.
- Hartman, Edward  
123 Cornelia Street, Brooklyn, N. Y.
- Herbst, Arthur Stephan  
340 East 77th Street, New York, N. Y.
- Hofman, Henry Conrad  
305 Dill Place, Ridgewood, N. Y.
- Homer, Theodore Howard, Jr.  
505 Lenox Avenue, New York, N. Y.
- Horowitz, Alexander  
79 East 107th Street, New York, N. Y.
- Horowitz, Barnet  
811 Avenue U, Brooklyn, N. Y.
- Horowitz, Samuel Louis  
558 Vermont Street, Brooklyn, N. Y.
- Hubbard, Earl Edmund  
63 Second Avenue, Bay Shore, N. Y.
- Jacaruso, John  
150 Sullivan Street, New York, N. Y.
- Jacobs, Herman  
296 Rochester Avenue, Brooklyn, N. Y.
- Jacobs, Meyer Jack  
18 Pike Street, New York, N. Y.
- Jaffe, Max  
Liberty N. Y.
- Kaplan, Samuel  
520 Medbury Avenue, Detroit, Mich.
- Kaufman, Michael Israel  
636 East 13th Street, New York, N. Y.
- Kaufman, Sydney William  
27 River Avenue, Fairlawn, N. J.
- Keller, Murray  
312 Madison Street, New York, N. Y.
- Kerewsky, Isidor  
360 Garden Avenue, Mount Vernon, N. Y.
- Koslowsky, Harry  
1439 East 37th Street, Brooklyn, N. Y.
- Kramer, Benjamin  
1143 Longfellow Avenue, New York, N. Y.
- Kross, David Theodore  
2937 West 35th Street, Brooklyn, N. Y.
- Kugelmass, Samuel  
155 South 4th Street, Brooklyn, N. Y.
- Lampert, Samuel  
447 Powell Street, Brooklyn, N. Y.
- Last, Ben  
250 East Gunhill Road, New York, N. Y.
- Lehrer, Morris  
186 Riverdale Avenue, Brooklyn, N. Y.
- Lepard, Thomas Horley  
270 Seaman Avenue, New York, N. Y.
- Levine, Hyman Israel  
433 Rockaway Parkway, Brooklyn, N. Y.
- Levine, Jonas  
2282 East 7th Street, Brooklyn, N. Y.
- Levine, Samuel  
801 West 181st Street, New York, N. Y.
- Levitt, Morris  
8950 Woodhaven Boulevard, Woodhaven, N. Y.
- Lewitus, Richard  
1542 Walton Avenue, New York, N. Y.
- Lifshitz, David  
1800 Seventh Avenue, New York, N. Y.
- Lipetz, Morris  
Elton Street, Riverhead, N. Y.
- Lipschitz, Edward  
236 East 82d Street, New York, N. Y.
- Liss, Max  
329 East 20th Street, New York, N. Y.
- Lopez, Anacleto  
451 West 36th Street, New York, N. Y.
- Loss, Margaret  
1581 Fulton Avenue, New York, N. Y.
- Lubin, Sydney Wellsworth  
4214 Twelfth Avenue, Brooklyn, N. Y.

- MacCurran, James Francis  
12 3d Street, Weehawken, N. J.
- McSharry, William  
10 Dashby Court, Rockaway Beach, N. Y.
- Madansky, Nathan  
260 Milford Street, Brooklyn, N. Y.
- Malmud, Mayer M.  
4320 Sixteenth Avenue, Brooklyn, N. Y.
- Mancini, Thomas Anthony  
316 East 29th Street, New York, N. Y.
- Marino, Frank Ermando  
20-23 120th Street, College Point, N. Y.
- Marks, Edward Herman  
1403 South Townsend Street, Syracuse, N. Y.
- Marotta, Raphael Anthony  
2301 Thirty-fifth Avenue, Astoria, N. Y.
- Mascellaro, Hector Edward  
111 Taylor Street, Long Island City, N. Y.
- Matthes, Herbert Max  
209 12th Street, College Point, N. Y.
- Megna, John  
1080 Sutter Avenue, Brooklyn, N. Y.
- Mersel, Joseph  
92 Perry Street, New York, N. Y.
- Meyer, Morris  
639 East 13th Street, New York, N. Y.
- Meyerson, Abraham  
1041 Elder Avenue, New York, N. Y.
- Miller, Abraham  
197 Van Buren Street, Brooklyn, N. Y.
- Mishler, Benjamin  
52 Belmont Avenue, Brooklyn, N. Y.
- Monestersky, Morris  
983 57th Street, Brooklyn, N. Y.
- Nelson, Isidore Ben  
813 Center Street, Bowling Green, Ky.
- Newer, Joseph George  
1514 Lincoln Place, Brooklyn, N. Y.
- Novendstern, David  
130 Ocean Avenue, Jersey City, N. J.
- Ochitell, Morris  
2921 36th Street, Brooklyn, N. Y.
- Oppenheim, Emanuel  
4802 Fort Hamilton Parkway, Brooklyn,  
N. Y.
- Palanzo, Charles Rocco  
134 Willow Street, Yonkers, N. Y.
- Perry, Harold  
123 Rockaway Parkway, Brooklyn, N. Y.
- Perry, Sidney  
123 Rockaway Parkway, Brooklyn, N. Y.
- Perveler, Martin Leo  
1710 Hoe Avenue, New York, N. Y.
- Petziner, Norman  
1225 Seneca Avenue, New York, N. Y.
- Pomerantz, Max  
150 East 2d Street, New York, N. Y.
- Posner, Murray William  
608 Tinton Avenue, New York, N. Y.
- Posner, Sidney  
923 Fox Street, New York, N. Y.
- Razzo, Frances Mary Amelia  
125 Second Avenue, New York, N. Y.
- Ricca, Joseph  
330 Clinton Street, Brooklyn, N. Y.
- Ricciardi, Ralph  
1957 West 4th Street, Brooklyn, N. Y.
- Risch, Samuel Saul  
3052 La Salle Avenue, New York, N. Y.
- Riveles, George  
63 East 100th Street, New York, N. Y.
- Riveles, Julius  
385 East 3d Street, New York, N. Y.
- Rocco, Emilio John  
27 St. Edwards Street, Brooklyn, N. Y.
- Rosenberg, Solomon  
197 10th Street, Long Island City, N. Y.
- Rosenberg, William Nathaniel  
945 West End Avenue, New York, N. Y.
- Rothleder, Paul  
2869 West 27th Street, Brooklyn, N. Y.
- Rubin, Paul  
630 Garden Street, Hoboken, N. J.
- Rubinstein, Jack  
299 Mt. Eden Avenue, New York, N. Y.
- Sacco, John  
P. O. Box No. 3, West End, N. J.
- Saia, Joseph John  
7 Court Street, Astoria, N. Y.
- Sampson, James Harris  
2347 Druid Hill Avenue, Baltimore, Md.
- Savitch, Milton  
411 East 15th Street, New York, N. Y.
- Schloss, Max  
1028 Simpson Street, New York, N. Y.
- Schneider, Nathan  
283 Liberty Avenue, Brooklyn, N. Y.
- Schwartz, Abraham  
2105 Black Rock Avenue, New York, N. Y.
- Schwartz, Isadore  
69 Liberty Place, Weehawken, N. J.
- Schwartz, Max  
624 Hopkinson Avenue, Brooklyn, N. Y.
- Schwartz, Sidney  
256 Rivington Street, New York, N. Y.
- Seidel, Leo  
1561 West 11th Street, Brooklyn, N. Y.
- Seppi, Dominick  
319 3d Street, Fairview, N. J.
- Shefkowitz, Julius L.  
1076 Faile Street, New York, N. Y.
- Silberman, Joel  
585 East 169th Street, New York, N. Y.
- Silverman, Hyman  
424 Chester Street, Brooklyn, N. Y.

- Simon, Irving Edward  
878 East 176th Street, New York, N. Y.
- Simon, Moses Benjamin  
137 Mansion Street, Poughkeepsie, N. Y.
- Smolowitz, Julius  
1593 Madison Avenue, New York, N. Y.
- Snyder, Sol  
535 West 163d Street, New York, N. Y.
- Soldo, Americo  
419 East 160th Street, New York, N. Y.
- Somers, Joseph  
1427 41st Street, Brooklyn, N. Y.
- Starman, Arthur Abraham  
1202 Miller Street, Utica, N. Y.
- Stein, Irving  
206 West 99th Street, New York, N. Y.
- Stein, Solomon Charles  
1674 East 13th Street, Brooklyn, N. Y.
- Steir, Edward  
172 East 7th Street, New York, N. Y.
- Strongin, Jack  
105-20 75th Street, Ozone Park, N. Y.
- Tabachnick, William  
1709 Bathgate Avenue, New York, N. Y.
- Tannenbaum, Nathan  
52 Bay 22d Street, Brooklyn, N. Y.
- Tenebra, Mary  
97-42 Corona Avenue, Corona, N. Y.
- Tiersfeld, Nathan  
14-16 East 108th Street, New York, N. Y.
- Tomashoff, Sidney  
4502 Sixteenth Avenue, Brooklyn, N. Y.
- Tortora, Anthony  
194 Cambridge Avenue, Jersey City, N. J.
- Troisi, Mario Philip  
2211 Second Avenue, New York, N. Y.
- Uva, Nicholas  
138 Sackman Street, Brooklyn, N. Y.
- Valenti, Joseph  
378 Fulton Avenue, Jersey City, N. J.
- Van Beuren, John Horace  
81 Chambers Street, Newburgh, N. Y.
- Vellensky, Bernard  
1437 40th Street, Brooklyn, N. Y.
- Volpert, Bernard Leon  
P. O. Box 170, Newman, N. Y.
- Wagreich, Arthur  
1216 Hoe Avenue, New York, N. Y.
- Waldinger, Sam Solomon  
150 Keap Street, Brooklyn, N. Y.
- Wallerick, Solomon  
82 Columbia Street, New York, N. Y.
- Wart, Arthur Henry  
Sandy Creek, N. Y.
- Washington, Izetta L. A. (Mrs.)  
321 Edgecomb Avenue, New York, N. Y.
- Weinberg, Louis Joseph  
257 Columbus Avenue, New York, N. Y.
- Weinstein, Morris  
1546 East 172d Street, New York, N. Y.
- Weiss, Harold  
140 29 Cherry Avenue, Flushing, N. Y.
- Weiss, Martin  
1521 Madison Avenue, New York, N. Y.
- Weiss, Samuel  
2162 Valentine Avenue, New York, N. Y.
- Welt, Morton  
2056 74th Street, Brooklyn, N. Y.
- Wiesenfeld, Irving  
957 Fox Street, New York, N. Y.
- Williams, Clifford Albert  
163 West 121st Street, New York, N. Y.
- Winer, Abe Martin  
440 East 6th Street, New York, N. Y.
- Wise, Fred  
928 Tiffany Street, New York, N. Y.
- Yablonowitz, Abraham  
1154 Elder Avenue, New York, N. Y.
- Yachnowitz, Louis  
120 Ludlow Street, New York, N. Y.
- Youran, Morris  
645 West 160th Street, New York, N. Y.
- Zanca, Natale Louis  
1320 Brook Avenue, New York, N. Y.
- Zanchelli, Gene Natalino  
343 East 152d Street, New York, N. Y.
- Zimand, Philip  
2024 Mermaid Avenue, Brooklyn, N. Y.
- Zweifach, Jacob  
162 Lee Avenue, Brooklyn, N. Y.
- (238)

## FIRST YEAR UNIVERSITY CLASS

- Armao, John Anthony  
1024 Boston Road, New York, N. Y.
- Borutti, Paul  
143 West 72d Street, New York, N. Y.
- Brown, Reginald C.  
54 Hawthorne Avenue, Yonkers, N. Y.
- Chasanowitz, Bernard  
96-28 Corona Avenue, Corona, N. Y.
- Clunie, Joseph Norman  
441 Manhattan Avenue, New York, N. Y.
- Dichter, Pearl  
10 Orchard Avenue, North Plainfield, N. J.
- D'Orazio, Robert Romeo  
767 East 237th Street, New York, N. Y.
- Dorr, Elinor Utley  
627 Delafield Avenue, West Brighton, N. Y.
- Ferraro, Joseph George  
37 Spring Dell, Rutherford, N. J.
- Freedman, Samuel  
69 East 105th Street, New York, N. Y.
- Givens, Johnson B.  
6 Cottage Place, Freehold, N. J.

- Goldsmith, Evelyn Georgette  
602 Teasdale Place, New York, N. Y.
- Hoeler, William J.  
99 Rose Terrace, Newark, N. J.
- Koller, Joseph Michael  
340 East 85th Street, New York, N. Y.
- Mont, Isadore  
Mohegan Colony, Peekskill, N. Y.
- Pfister, C. Leonard  
49 East 19th Street, Brooklyn, N. Y.
- Sasmor, Ernest Jackson  
1227 Nelson Avenue, New York, N. Y.
- Sher, Philip Benjamin  
272 Crown Street, Brooklyn, N. Y.
- Thomas, James Grant  
Wells River, Vt.
- Vernava, Anthony  
134 White Street, New York, N. Y.
- Vigilante, Ovidio Carl  
40 Junction Boulevard, Corona, N. Y.
- Wight, Christian Frank  
Bethel, Conn.
- Ziliotto, Enrico  
121-20 Liberty Avenue, Richmond Hill,  
N. Y.
- Zlinkoff, Bernard Welch  
233 West 112th Street, New York, N. Y.
- (24)
- FIRST YEAR COLLEGE CLASS
- Alward, James Carleton  
4 Wright Street, Port Jervis, N. Y.
- Anapol, Annie  
51 Hamilton Place, New York, N. Y.
- Aponofsky, Anna  
Broadway and Little Neck Road, Little  
Neck, N. Y.
- Avignone, Carlo James  
Massapequa, N. Y.
- Badagliacca, Vincent Anthony  
130 George Street, Brooklyn, N. Y.
- Bank, Louis  
1468 White Plains Road, New York, N. Y.
- Barbera, Anthony Joseph  
549 Henry Street, Brooklyn, N. Y.
- Bashevkin, Isaac  
1012 Rutland Road, Brooklyn, N. Y.
- Battaglia, John Joseph  
544 Warren Street, Brooklyn, N. Y.
- Beadle, Kenneth Gumaer  
42 Henry Street, Kingston, N. Y.
- Becker, Sidney Simon  
2844 West 1st Street, Brooklyn, N. Y.
- Belitz, Morris  
501 West 175th Street, New York, N. Y.
- Bellet, Louis  
23-09 Astoria Boulevard, Astoria, N. Y.
- Berg, Louis  
2709 Webb Avenue, New York, N. Y.
- Berkowitz, Efreml Leslie  
3242 Bedford Avenue, Brooklyn, N. Y.
- Bittar, Dewey  
5101 Sixth Avenue, Brooklyn, N. Y.
- Blick, Richard  
864 Troy Avenue, Brooklyn, N. Y.
- Bologh, Sidney David  
862 Kelly Street, New York, N. Y.
- Breiner, Charles Vincent  
63 Linden Avenue, Middletown, N. Y.
- Burton, Samuel  
1471 St. Marks Avenue, Brooklyn, N. Y.
- Busch, David Carlyle  
227 East 203d Street, New York, N. Y.
- Byrnes, Robert Edward  
1 Caryl Avenue, Yonkers, N. Y.
- Caso, Attilio Arthur  
1209 Beach Avenue, New York, N. Y.
- Chadkin, Jason Abraham  
944 42d Street, Brooklyn, N. Y.
- Chernick, Benjamin  
178 East 95th Street, Brooklyn, N. Y.
- Chu, Kang  
10 Doyers Street, New York, N. Y.
- Chung, Tzee Hugh  
13 Queens Street, Hong Kong, China
- Cohen, Benjamin  
1264 Amsterdam Avenue, New York, N. Y.
- Cohen, Elias  
1824 McGraw Avenue, New York, N. Y.
- Cohen, Max George  
2164 Clinton Avenue, New York, N. Y.
- Cohen, Morris  
38-40 Herzl Street, Brooklyn, N. Y.
- Colarusso, Thomas G.  
22 Harrison Street, Mount Vernon, N. Y.
- Coller, Gertrude Ethel  
840 Castleton Avenue, West New Brighton,  
N. Y.
- Coller, Pearl  
840 Castleton Avenue, West New Brighton,  
N. Y.
- Corbett, Ertis Lee  
Box 14, North, S. C.
- Cosenza, Salvatore  
216 Union Street, Brooklyn, N. Y.
- Costello, John Joseph  
84 Livingston Avenue, Yonkers, N. Y.
- Cowan, John Wesley  
244 Palmer Avenue, Mamaroneck, N. Y.
- Cozzolino, Sylvia Rafaela  
564 East 191st Street, New York, N. Y.
- D'Arco, George Daniel  
85 North Elliott Place, Brooklyn, N. Y.
- De Angelis, Dominick Francis  
1160 63d Street, Brooklyn, N. Y.
- Denowitz, Jacob  
107 Draper Street, Springfield, Mass.
- Doctors, Albert  
101-19 Vine Street, Corona, N. Y.

- Dubitsky, Jules  
23 West 52d Street, Bayonne, N. Y.
- Emrich, Ralph James  
115 Maine Avenue, West New Brighton,  
N. Y.
- Erwich, Irving Harold  
11 Newin Street, Corona, N. Y.
- Failla, Alfred Vincent  
740 Main Street, North Bergen, N. J.
- Fasolino, Mario  
111 North Regent Street, Port Chester, N. Y.
- Fassy, Julius Milton  
153 Delancey Street, New York, N. Y.
- Febbraio, Edmund  
1877 Longfellow Avenue, New York, N. Y.
- Feinbaum, Harry  
1410 Wilkins Avenue, New York, N. Y.
- Feinberg, Louis Julius  
121 Dahill Road, Brooklyn, N. Y.
- Feitelberg, Morton  
2101 Morris Avenue, New York, N. Y.
- Ferruggia, Dominick  
1540 De Kalb Avenue, Brooklyn, N. Y.
- Florentino, Anthony Louis  
1280 Bergen Street, Brooklyn, N. Y.
- Foley, Vincent Aloysius  
915 Park Avenue, Hoboken, N. J.
- Friedman, Oscar  
2 Webster Avenue, Jersey City, N. J.
- Frisch, Bernard  
789 West End Avenue, New York, N. Y.
- Fromm, Kate  
1226 Sherman Avenue, New York, N. Y.
- Gans, Sydney  
48 Adelaide Street, Rye, N. Y.
- Garzetta, Carmel  
101 3d Street, New Dorp, N. Y.
- Gershkowitz, Louis  
415 Powell Street, Brooklyn, N. Y.
- Giuliano, Armida  
728 East 187th Street, New York, N. Y.
- Glaser, Herman  
442 Throop Avenue, Brooklyn, N. Y.
- Glaser, Jacob Julius  
309 East 10th Street, New York, N. Y.
- Glassman, Edward Harry  
1114 Fteley Avenue, New York, N. Y.
- Glick, Esther Henrietta  
Central Valley, N. Y.
- Glotzer, Isadore George  
1908 Prospect Avenue, New York, N. Y.
- Gnaizda, Samuel Joseph  
93 Schenck Avenue, Brooklyn, N. Y.
- Goldberg, David  
95 Newport Street, Brooklyn, N. Y.
- Goldberg, Isidore George  
2266 Church Avenue, Brooklyn, N. Y.
- Goodnow, Alan Egbert  
Nyando, N. Y.
- Goodrich, Minnie  
2070 Creston Avenue, New York, N. Y.
- Gordon, Jacob  
269 Rochester Avenue, Brooklyn, N. Y.
- Granet, Morris  
395 Powell Street, Brooklyn, N. Y.
- Greenberg, Frank  
344 Atlantic Avenue, Brooklyn, N. Y.
- Greenfield, Benjamin  
618 East 140th Street, New York, N. Y.
- Grenadir, Hyman David  
2232 Douglass Street, Brooklyn, N. Y.
- Guattery, Peter Joseph  
181 Wickham Avenue, Middletown, N. Y.
- Gulli, Antoinette Rita  
7714 Sixteenth Avenue, Brooklyn, N. Y.
- Gumer, Max Simon  
274 Ormond Street, Rochester, N. Y.
- Gussow, Max  
911 Tiffany Street, New York, N. Y.
- Haber, Alexander Charles  
1822 Mohegan Avenue, New York, N. Y.
- Handsman, Harry Lerner  
564 Linden Boulevard, Brooklyn, N. Y.
- Harris, Harry  
83 Norfolk Street, New York, N. Y.
- Heiden, Eugenia  
819 Trinity Avenue, New York, N. Y.
- Heller, John Andrew Paul  
139 Montgomery Street, Poughkeepsie, N. Y.
- Henkin, Bernard  
706 West 180th Street, New York, N. Y.
- Hicks, John  
325 Madison Street, New York, N. Y.
- Hostomsky, Edward  
106-18 Twenty-seventh Avenue, East Elm-  
hurst, N. Y.
- Isaac, Louis  
580 Fox Street, New York, N. Y.
- Izenberg, Leo  
601 East 23d Street, Paterson, N. J.
- Kaplan, Jacob  
165 Dewey Avenue, Pittsfield, Mass.
- Kasday, Julius  
97-52 Corona Avenue, Corona, N. Y.
- Ketcham, George Vanderbilt  
Gilbert Street, Northport, N. Y.
- Kirschenbaum, Samuel  
421 East 10th Street, New York, N. Y.
- Koretsky, Fanny  
359 West 45th Street, New York, N. Y.
- Kowalchik, Margaret  
1119 South Main Street, Scranton, Pa.
- Kristal, Myer  
1682 Third Avenue, New York, N. Y.
- Kwasniewski, Julian  
158 Meserole Avenue, Brooklyn, N. Y.
- Le Blanc, Milton  
78-15 Sixty-seventh Drive, Middle Village,  
N. Y.



- Levy, Julius  
1837 Clinton Avenue, New York, N. Y.
- Levy, Sarah Ida  
512 36th Street, Union City, N. J.
- Liberali, Charles  
10228 Eighty-eighth Avenue, Richmond Hill, N. Y.
- MacLennan, Daniel Grant  
58 Manhasset Avenue, Manhasset, N. Y.
- Maduri, Elizabeth Virginia  
164 Washington Park, Brooklyn, N. Y.
- Mahler, Henry  
745 East 175th Street, New York, N. Y.
- Mavrogiannis, John George  
885 East 181st Street, New York, N. Y.
- Mayhams, Joseph Mortimer  
409 Orange Street, Georgetown, S. C.
- Messina, Anthony Pasquale  
56-58 Macdougall Street, New York, N. Y.
- Miele, Louis W.  
2153 82d Street, Brooklyn, N. Y.
- Milchman, David  
167 Forbell Avenue, Brooklyn, N. Y.
- Milkowitz, Morris  
195 South 4th Street, Brooklyn, N. Y.
- Miller, Abraham Henry  
124 Second Avenue, New York, N. Y.
- Mills, Lawrence Guy  
East Main Street, Chateaugay, N. Y.
- Mitchell, Walter Lawrence  
34 Ashton Street, Charleston, S. C.
- Mufson, Morris  
523 Gregory Avenue, Passaic, N. J.
- Naliboff, Edward Murray  
216 East 67th Street, New York, N. Y.
- Namiat, Morris  
112 East Broadway, New York, N. Y.
- Nardozza, Joseph Salvatore  
413 Madison Street, Hoboken, N. J.
- Nelson, Lewis R.  
813 Center Street, Bowling Green, Ky.
- Newman, Augustine  
382 Broadway, Monticello, N. Y.
- Newman, Percy  
North White Lake, N. Y.
- O'Connor, Harry Joseph  
2540 Humphries Street, East Elmhurst, N. Y.
- Osterhoudt, Clifford Luther  
65 Van Cortlandt Park Avenue, New York, N. Y.
- Padnis, Nathan  
730 Oakland Place, New York, N. Y.
- Paley, Irving Benedict  
916 Jefferson Avenue, Brooklyn, N. Y.
- Palitz, Mortimer  
320 West 86th Street, New York, N. Y.
- Palloff, Isadore Irving  
215 Fairview Avenue, Jersey City, N. J.
- Pavone, Egidio  
31 Mt. Hope Place, New York, N. Y.
- Perelzweig, Samuel  
1766 57th Street, Brooklyn, N. Y.
- Pfeffer, Alfred  
1177 Nelson Avenue, New York, N. Y.
- Photoglou, George Michael  
316 West 111th Street, New York, N. Y.
- Plotkin, Morris Louis  
642 High Street, Newark, N. J.
- Pozdena, Milton Otto  
6805 Woodside Avenue, Winfield, N. Y.
- Prucz, Harry  
486 Ninth Avenue, New York, N. Y.
- Pucillo, Nataleen Virginia  
Box 311, Tuxedo Park, New York, N. Y.
- Pushkin, George David  
1691 Fulton Avenue, New York, N. Y.
- Rabinowitz, Ephraim  
1845 Seventh Avenue, New York, N. Y.
- Rand, George  
667 West 161st Street, New York, N. Y.
- Reddick, Aubert Evans  
409 Edgecomb Avenue, New York, N. Y.
- Richman, Alexander  
34 Montietth Street, Brooklyn, N. Y.
- Rocchio, Philip Paul  
108-22 Forty-eighth Avenue, Corona, N. Y.
- Rosen, Abraham  
1264 Amsterdam Avenue, New York, N. Y.
- Rosenberg, Hyman Fred  
1530 Sheridan Avenue, New York, N. Y.
- Rosenberg, Mandel  
4 Hinman Street, Middle Village, N. Y.
- Roshkofsky, Jack  
2077 East 12th Street, Brooklyn, N. Y.
- Rovira, Frank  
139 West 113th Street, New York, N. Y.
- Safarik, Joseph John  
80 Grand Street, Springfield, Mass.
- Saks, Joseph Herman  
396 Schenck Avenue, Brooklyn, N. Y.
- Salmeri, Frances Mary  
1041 67th Street, Brooklyn, N. Y.
- Schansinger, Benjamin  
6819 Morton Avenue, Middle Village, N. Y.
- Schnaer, Abraham Isador  
473 Pennsylvania Avenue, Brooklyn, N. Y.
- Schweig, Harry Karl  
1200 Leland Avenue, New York, N. Y.
- Simon, Isidore  
3160 Coney Island Avenue, Brooklyn, N. Y.
- Simon, Samuel  
1535 Minford Place, New York, N. Y.
- Singer, Frank Philip  
1766 Washington Avenue, New York, N. Y.
- Soikin, David  
1595 Macombs Road, New York, N. Y.

- Stack, Irving  
631 Edgecomb Avenue, New York, N. Y.
- Stein, Abraham  
864 Troy Avenue, Brooklyn, N. Y.
- Steinhauer, Bernard  
1258 43d Street, Brooklyn, N. Y.
- Stiles, Richard David  
2114 83d Street, Brooklyn, N. Y.
- Suslovich, Boris  
69 Amboy Street, Brooklyn, N. Y.
- Taylor, Harold Lewis  
62 Line Street, Charleston, S. C.
- Ticktin, George Beverley  
431 Kingston Road, Toronto, Ont., Canada
- Tingling, Leslie  
315 Edgecomb Avenue, New York, N. Y.
- Trovato, Michael Alexander  
32-49 100th Street, Corona, N. Y.
- Umlas, Isidore  
1027 Elder Avenue, New York, N. Y.
- Unger, Bernard  
522 West 161st Street, New York, N. Y.
- Villone, Anna Rose  
161 West 4th Street, New York, N. Y.
- Wallach, Lawrence  
633 West 152d Street, New York, N. Y.
- Waugh, Theodore  
79-34 Sixty-seventh Road,  
Middle Village, N. Y.
- Weiss, Harry  
854 Stone Avenue, Brooklyn, N. Y.
- Weiss, Stanley Daniel  
30 Fairview Avenue, New York, N. Y.
- Werst, Francis Bernard  
906 Cottage Place, Union City, N. J.
- Winokur, Emanuel  
577 Bushwick Avenue, Brooklyn, N. Y.
- Wishner, Jacob  
222 Marcy Avenue, Brooklyn, N. Y.
- Wishny, Gilbert  
88 East 111th Street, New York, N. Y.
- Woiens, David  
1255 Brook Avenue, New York, N. Y.
- Wolff, Max  
10809 Ditmars Avenue, East Elmhurst, N. Y.
- Wunsh, Theodore Eugene  
1329 Fifth Avenue, New York, N. Y.
- Yarow, Harold  
104-55 113th Street, Richmond Hill, N. Y.
- Yarvis, Samuel  
415 Bradford Street, Brooklyn, N. Y.
- Zeichner, Harold  
1258 Fteley Avenue, New York, N. Y.
- Zuckerman, Abraham  
360 Beekman Avenue, New York, N. Y.
- Zykorie, Emil  
114 Stanton Street, New York, N. Y.

## ACADEMIC CALENDAR

1930

- June 9-Aug. 18. Summer Laboratory Courses.  
Sept. 3-5. Registration for first-year candidates.  
9-12. Supplementary Examinations.  
17-18. Registration for second-, third- and fourth-year candidates.  
22. Monday, One Hundred and First Session begins. Second-, Third- and Fourth-Year Classes assemble 9 a. m.  
23. Tuesday, First-Year Classes assemble 9 a. m.  
Oct. 6. Monday, Evening Courses start.  
Nov. 4. Tuesday, Election Day, Holiday.  
27. Thursday, to November 30, Saturday, inclusive. Thanksgiving Holidays.  
Dec. 22. Monday, to

1931

- Jan. 3. Saturday, inclusive, Christmas Holidays.  
5. Monday, Sessions resumed.  
19-24. Mid-Year Examinations.  
19. Monday, Second Semester, Evening Courses start.  
Feb. 12. Thursday, Lincoln's Birthday, Holiday.  
23. Monday, Washington's Birthday, Holiday.  
Apr. 3-4. Spring Holiday.  
6. Monday, All classes. Last day for applying for final examinations with payment of fee.  
May 8. Friday, Evening Courses close.  
12-18. Final Examinations, First-, Second-, and Third-year College and University Classes.  
18-20. Final Examinations, Senior University Class.  
27. Wednesday, First- and Second-Year Exercises (Alumni Day).  
28. Thursday, College Commencement.  
June 2. Tuesday, University Commencement.

## SCHEDULE OF EXAMINATIONS

### *Supplementary Examinations*

#### FIRST-YEAR COLLEGE AND UNIVERSITY CLASSES

1930

- Sept. 9. Tuesday, 9-12 a. m., *Phr. 1-2*, Pharmacy.  
10. Wednesday, 9-12 a. m., *Chm. 3-4*, Chemistry.  
Wednesday, 2-5 p. m., *Chm. 1-2*, Physics.

- Sept. 11. Thursday, 9-12 a. m., *M.M. 1-2*, Botany.  
 Thursday, 9-12 a. m., *M.M. 5-6*, Posology.  
 Thursday, 2-5 p. m., *Coll. 1-2*, English.  
 Thursday, 2-5 p. m., *Coll. 3-4*, American government.

## SECOND-YEAR COLLEGE AND UNIVERSITY CLASSES

- Sept. 9. Tuesday, 9-12 a. m., *Phr. 51-52*, Theoretical pharmacy.  
 Tuesday, 2-5 p. m., *Phr. 61-62*, Commercial pharmacy.  
 10. Wednesday, 9-12 a. m., *Chm. 55-56*, Inorganic chemistry.  
 Wednesday, 2-5 p. m., *Chm. 51-52*, Physics.  
 11. Thursday, 9-12 a. m., *M.M. 57-58*, Physiology.  
 Thursday, 9-12 a. m., *M.M. 59-60*, Microbiology.  
 Thursday, 2-5 p. m., *Coll. 51-52*, German.

## THIRD-YEAR COLLEGE AND UNIVERSITY CLASSES

- Sept. 9. Tuesday, 9-12 a. m., *Phr. 101-102*, Theoretical pharmacy.  
 Tuesday, 2-5 p. m., *Phr. 107-108*, Dispensing pharmacy.  
 Tuesday, 2-5 p. m., *Coll. 101-102*, Mathematics.  
 10. Wednesday, 9-12 a. m., *Chm. 103-104*, Organic chemistry.  
 Wednesday, 2-5 p. m., *Chm. 107-108*, Newer remedies.  
 Wednesday, 2-5 p. m., *Chm. 101-102*, Theories of chemistry.  
 11. Thursday, 9-12 a. m., *M.M. 101-102*, Materia medica.  
 Thursday, 2-5 p. m., *M.M. 103-104*, Toxicology.  
 Thursday, 2-5 p. m., *M.M. 109-110*, Pharmacal sundries.  
 12. Friday, 9-12 a. m., *Phr. 109-110*, Jurisprudence and business pharmacy.

*Mid-Year Examinations and Tests*

1931

- Jan. 19-24. A schedule of these examinations and tests will be posted on the bulletin boards. Students not in residence should consult the Registrar for information regarding them.

*Final Examinations*

## FIRST-YEAR COLLEGE AND UNIVERSITY CLASSES

1931

- May 12. Tuesday, 9-12, *M.M. 1-2*, Botany.  
 Tuesday, 9-12, *M.M. 5-6*, Posology.  
 Tuesday, 9-12, *M.M. 7-8*, Posology.  
 Tuesday, 2-5, *Chm. 3-4*, Inorganic chemistry.  
 14. Thursday, 9-12, *Chm. 1-2*, Physics.  
 Thursday, 2-5, *Phr. 1-2*, Pharmacy.  
 16. Saturday, 9-12, *Coll. 1-2*, English.  
 Saturday, 9-12, *Coll. 3-4*, American government.

## SECOND-YEAR COLLEGE AND UNIVERSITY CLASSES

- May 11. Monday, 9-12, *Phr.* 51-52, Theoretical pharmacy.  
Monday, 2-5, *M.M.* 57-58, Physiology.  
Monday, 2-5, *M.M.* 59-60, Microbiology.
13. Wednesday, 9-12, *Chm.* 55-56, Inorganic chemistry.  
Wednesday, 2-5, *Chm.* 51-52, Physics.
14. Thursday, 9-12, *Coll.* 51-52, German.
15. Friday, 9-12, *Phr.* 61-62, Commercial pharmacy.  
Friday, 2-5, *Phr.* 53-54, Pharmaceutical Latin.

## THIRD-YEAR COLLEGE AND UNIVERSITY CLASSES

- May 11. Monday, 9-12, *Chm.* 103-104, Organic chemistry.  
Monday, 2-4, *Chm.* 107-108, Newer remedies.
12. Tuesday, 9-12, *Chm.* 101-102, Theories of chemistry.  
Tuesday, 2-5, *Coll.* 101-102, Mathematics.
13. Wednesday, 9-12, *Phr.* 101-102, Theoretical pharmacy.  
Wednesday, 2-5, *Phr.* 109-110, Jurisprudence and business pharmacy.
15. Friday, 9-12, *M.M.* 101-102, Materia medica.  
Friday, 2-5, *M.M.* 103-104, Toxicology.  
Friday, 2-5, *M.M.* 109-110, Pharmacal sundries.
18. Monday, 9-12, *Phr.* 107-108, Dispensing pharmacy.

## FOURTH-YEAR UNIVERSITY CLASS

- May 18. Monday, 9-12, *Phr.* 151-152, Pharmacy.  
Monday, 1-4, *Chm.* 151-152, Inorganic quantitative analysis.
19. Tuesday, 9-12, *Chm.* 153-154, Food analysis and toxicology.
20. Wednesday, 9-5, *Chm.* 155-156, Biological chemistry.  
Wednesday, 9-5, *M.M.* 155-156, Physiology.

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# Columbia University

## BULLETIN OF INFORMATION

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Thirty-first Series, No. 40

July 4, 1931

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ANNOUNCEMENT OF THE

### COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

FOR THE WINTER AND SPRING SESSIONS

1931-1932



113-119 WEST 68TH STREET  
NEW YORK

# Columbia University Bulletin of Information

Thirty-first Series, No. 40

July 4, 1931

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1. Reports of the President and Treasurer to the Trustees.
2. The Catalogue Number, the Directory Number and the Announcements of the several Colleges and Schools, and of certain Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.

C. U. P—18,000—1931

For special or more detailed information than is given in this Announcement, applicants are requested to address the Registrar of the College, 115 West 68th Street. His office hours are as follows: From September 1, 1931, to May 1, 1932, daily except Saturdays, 9 a. m. to 5 p. m.; Saturdays, 9 a. m. to 12 m. Other portions of the year, daily (except Saturdays), 9:30 a. m. to 4 p. m.; Saturdays, 9:30 a. m. to 12 m.





COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

113-119 WEST SIXTY-EIGHTH STREET



# Columbia University

in the City of New York

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ANNOUNCEMENT OF THE

## COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

FOR THE WINTER AND SPRING SESSIONS

1931-1932



113-119 WEST 68TH STREET  
NEW YORK

This college reserves the right to make such changes in the curriculum, schedule, calendar, and regulations appearing in this Announcement, as circumstances may require.

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# 1931

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
<b>Jan.</b>	4	5	6	7	8	9	10	<b>May</b>	3	4	5	6	7	8	9	<b>Sept.</b>	6	7	8	9	10	11	12
	11	12	13	14	15	16	17		10	11	12	13	14	15	16		13	14	15	16	17	18	19
	18	19	20	21	22	23	24		17	18	19	20	21	22	23		20	21	22	23	24	25	26
	25	26	27	28	29	30	31		24	25	26	27	28	29	30		27	28	29	30			
<b>Feb.</b>	1	2	3	4	5	6	7	<b>June</b>	1	2	3	4	5	6	7	<b>Oct.</b>	1	2	3	4	5	6	7
	8	9	10	11	12	13	14		8	9	10	11	12	13	14		4	5	6	7	8	9	10
	15	16	17	18	19	20	21		14	15	16	17	18	19	20		11	12	13	14	15	16	17
	22	23	24	25	26	27	28		21	22	23	24	25	26	27		18	19	20	21	22	23	24
<b>March</b>	1	2	3	4	5	6	7	<b>July</b>	28	29	30					<b>Nov.</b>	25	26	27	28	29	30	31
	8	9	10	11	12	13	14		5	6	7	8	9	10	11		1	2	3	4	5	6	7
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	22	23	24	25	26	27	28		19	20	21	22	23	24	25		15	16	17	18	19	20	21
<b>April</b>	29	30	31					<b>Aug.</b>	26	27	28	29	30	31		<b>Dec.</b>	22	23	24	25	26	27	28
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	12	13	14	15	16	17	18		2	3	4	5	6	7	8		6	7	8	9	10	11	12
	19	20	21	22	23	24	25		9	10	11	12	13	14	15		13	14	15	16	17	18	19
	26	27	28	29	30				16	17	18	19	20	21	22		20	21	22	23	24	25	26
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									30	31													

# 1932

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
<b>Jan.</b>	3	4	5	6	7	8	9	<b>May</b>	1	2	3	4	5	6	7	<b>Sept.</b>	4	5	6	7	8	9	10
	10	11	12	13	14	15	16		8	9	10	11	12	13	14		11	12	13	14	15	16	17
	17	18	19	20	21	22	23		15	16	17	18	19	20	21		18	19	20	21	22	23	24
	24	25	26	27	28	29	30		22	23	24	25	26	27	28		25	26	27	28	29	30	
<b>Feb.</b>	31							<b>June</b>	29	30	31					<b>Oct.</b>	1	2	3	4	5	6	7
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	7	8	9	10	11	12	13		5	6	7	8	9	10	11		2	3	4	5	6	7	8
	14	15	16	17	18	19	20		12	13	14	15	16	17	18		9	10	11	12	13	14	15
	21	22	23	24	25	26	27		19	20	21	22	23	24	25		16	17	18	19	20	21	22
<b>March</b>	28	29						<b>July</b>	26	27	28	29	30			<b>Nov.</b>	23	24	25	26	27	28	29
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<b>April</b>	3	4	5	6	7	8	9	<b>Aug.</b>	3	4	5	6	7	8	9	<b>Dec.</b>	6	7	8	9	10	11	12
	10	11	12	13	14	15	16		10	11	12	13	14	15	16		13	14	15	16	17	18	19
	17	18	19	20	21	22	23		17	18	19	20	21	22	23		20	21	22	23	24	25	26
	24	25	26	27	28	29	30		24	25	26	27	28	29	30		27	28	29	30			
									31														

# 1933

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
<b>Jan.</b>	1	2	3	4	5	6	7	<b>May</b>	1	2	3	4	5	6	7	<b>Sept.</b>	3	4	5	6	7	8	9
	8	9	10	11	12	13	14		7	8	9	10	11	12	13		10	11	12	13	14	15	16
	15	16	17	18	19	20	21		14	15	16	17	18	19	20		17	18	19	20	21	22	23
	22	23	24	25	26	27	28		21	22	23	24	25	26	27		24	25	26	27	28	29	30
<b>Feb.</b>	29	30	31					<b>June</b>	28	29	30	31				<b>Oct.</b>	1	2	3	4	5	6	7
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<b>March</b>	26	27	28					<b>July</b>	25	26	27	28	29	30		<b>Nov.</b>	29	30	31				
<b>April</b>	2	3	4	5	6	7	8	<b>Aug.</b>	2	3	4	5	6	7	8	<b>Dec.</b>	2	3	4	5	6	7	8
	9	10	11	12	13	14	15		9	10	11	12	13	14	15		9	10	11	12	13	14	15
	16	17	18	19	20	21	22		16	17	18	19	20	21	22		16	17	18	19	20	21	22
	23	24	25	26	27	28	29		23	24	25	26	27	28	29		23	24	25	26	27	28	29
	30								30	31							30						

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IRVING McKESSON, 1932	NATHANIEL NICOLAI, 1933
ALBERT E. STRATTON, 1932	HERMAN WALTER, 1933
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JACOB WEIL, 1932	ADOLPH HENNING, 1934
DAVID COSTELO, 1933	J. LEON LASCOFF, 1934
CHARLES S. LITTELL, 1933	S. BARKSDALE PENICK, 1934
RICHARD H. TIMMERMANN, 1934	

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LESLIE JAYNE, Ph.Ch., B.S.....	<i>Assistant Professor of Chemistry</i>

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ALEITA HOPPING, A.B., Ph.D. . . . .	<i>Assistant Professor of Physiology</i>

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GEORGE D. MCJIMSEY, A.M.....	<i>Lecturer in English and American Government</i>
ARTHUR H. INGENHUETT, A.M.....	<i>Lecturer in German</i>

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CHARLES S. DANIELSON.....	<i>Bursar of the University</i>
HENRY LEE NORRIS, M.E.....	<i>Director of Works</i>
CLARENCE E. LOVEJOY, A.B.....	<i>Alumni Secretary</i>



## COLUMBIA UNIVERSITY

Columbia University was founded in 1754 as King's College by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws and Doctor of Law (Doctor Juris); the College of Physicians and Surgeons with courses leading to the degree of Doctor of Medicine; the School of Engineering, with courses leading to the Bachelor of Science degree, the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degree of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degrees of Bachelor of Literature and Master of Science; the School of Business, with courses leading to the degrees of Bachelor and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degrees of Bachelor of Science and Doctor of Dental Surgery; the School of Library Service, with courses leading to the degrees of Bachelor of Science and Master of Science; Seth Low Junior College offering two and three years of collegiate work in preparation for admission to professional schools or to more advanced work in liberal arts and sciences in Columbia University; the non-professional Graduate Faculties of Political Science, Philosophy, and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy.

In addition to these schools and faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; the College of Pharmacy of the City of New York, with courses leading to the degrees of Pharmaceutical Chemist, Bachelor of Science and Doctor of Pharmacy; St. Stephen's College, Annandale, New York, an undergraduate college for men with courses leading to the degree of Bachelor of Arts; and the Union Theological Seminary, whose faculty conducts certain University work leading to the degree of Master of Arts.

The University maintains three sessions during the year: The Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education and to take courses toward a diploma or an academic degree. Home Study courses are also offered to persons who are unable to take work in residence.

## ADMISSION

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma, is enrolled as a matriculated student of the University. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standard of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the Announcement of each school will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

## WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar. Applications for the return of fees must be made in writing at the time of withdrawal.

The Dean or Director of the school or faculty concerned may, for reasons of weight, grant a leave of absence to a student in good standing.

## ANNOUNCEMENTS

The Announcements of each college or school, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

The Announcement of each school contains a schedule of fees and expenses for the courses in that school.

## LIBRARY

The Library of the University contains about 1,214,524 volumes, exclusive of unbound pamphlets. The various departments of instruction have also special libraries in connection with their lecture rooms and laboratories. The Avery

Architectural Library, the law library, the Ella Weed Library of Barnard College, Teachers College library, and the libraries of the College of Physicians and Surgeons, the School of Dental and Oral Surgery, and the College of Pharmacy, are all available to students of the University.

#### RESIDENCE HALLS

There are four Residence Halls for men on South Field: Furnald with 282 rooms, Hartley with 300, John Jay with 476 and restaurants adequate for all men students, and Livingston with 300 rooms. Johnson Hall, on East Field, with accommodations of room and board for 360 students in the graduate and professional schools is a Residence Hall for women.

All the University Residence Halls, for both men and women, are under the supervision of advisory committees appointed by the President, consisting of University officers and assisted by committees made up of residents in the Halls.

Copies of Residence Halls Announcements giving floor plans and dormitory regulations together with application blanks will be furnished on request by the Secretary of the University, 213 Library.

#### INTERNATIONAL HOUSE

International House, 500 Riverside Drive, the home of the Inter-Collegiate Cosmopolitan Club, is maintained for men and women students from foreign lands and a limited number of American students. It accommodates 175 women and 325 men. It contains attractive restaurants and social rooms. Fees for the academic year range from \$185 to \$325. Inquiries should be addressed to the Committee on Admissions, International House, 500 Riverside Drive.

#### THE RESIDENCE BUREAU

Columbia University maintains a Residence Bureau to protect the students' interests and to assist students in finding the best accommodations obtainable in the University neighborhood. There is no charge made for this service. The Bureau will furnish upon request addresses of rooms which have been inspected. The University is in no way responsible for any private lodging house. Students desiring information regarding rooms outside of University Halls should address the Residence Bureau, Room M, Earl Hall, Columbia University.

#### KING'S CROWN HOTEL

The King's Crown, located at 420 West 116th Street in close proximity to the University, provides accommodations at reasonable rates, available for relatives and guests of members of the University community.

#### DINING FACILITIES

The University maintains a dining room for women students in Johnson Hall and a dining room and a grillroom for men students in John Jay Hall. In addition, the University maintains the following dining rooms (cafeteria service): the Commons (men and women), University Hall; Barnard Hall Lunch Room

(women), Barnard Hall; Teachers College Cafeteria (men and women), Grace Dodge Hall, 121st Street. All these dining rooms are under expert supervision and furnish wholesome food at moderate rates.

The Columbia University Press Bookstore, located in the basement of Journalism, conducts a soda fountain where light luncheons are served.

#### EARL HALL

Earl Hall was given to Columbia University by the late William Earl Dodge for the religious and social activities of the students. On the main floor, reached by the campus entrance, are the offices of the Director of Earl Hall (Men's Residence Halls Office); the Residence Bureau; the Secretary of Appointments; and the Meeting Room. On the upper floor are the offices of the Chaplain of the University and his staff, and also an auditorium seating 400 people which is used by musical and dramatic organizations. The lower floor, entrance from Broadway, is occupied by the offices of the University Medical Officer.

#### GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the University Medical Officer. On the basis of this examination, advice is given as to the kind and amount of exercise best adapted to his needs. Barnard Hall, of Barnard College, and Thompson Hall, of Teachers College, are thoroughly equipped with physical training facilities for women students.

#### MEDICAL SERVICE

The University Medical Officer has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. The University Medical Officer, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists, and nursing care, will receive such information upon applying at the office of the University Medical Officer.

# THE COLLEGE OF PHARMACY

## IMPORTANT ANNOUNCEMENT

### STATE BOARD REQUIREMENTS

It has been agreed among all the important state boards of pharmacy in the United States, with the exception of New York, that the degree of Graduate in Pharmacy, awarded for a course of less than four years will not be accepted from graduates matriculating after the year 1932. In certain of the states there is an additional demand that the college instruction be spread over five days of the week. It follows that students matriculating in the pharmacy schools of this state must pursue some other course than the Ph.G. course of three years, if they wish their diplomas to be recognized in other states. Our University Course of four years leading to the degree of Bachelor of Science in Pharmacy (see page 16) is more than equivalent to the four-year course required by other states. As stated above, our course provides 1056 hours annually of instruction for four years of 32 weeks each, the work occupying five days of each week.

### GENERAL STATEMENT

The one hundred and second annual session of the College of Pharmacy, open to both men and women, will begin on Monday, September 21, 1931.

In May, 1930, our first graduates of the reorganized and extended three-year College Course received their diplomas. In the past, our two-year College Course, while giving thorough instruction in pharmacy, was not considered as of sufficient scope to be entitled to University standing, and its diplomas were issued by the College, independently. With the extension of the work to three years, this deficiency is eliminated, and the diplomas of this course will hereafter bear the University name.

### THE COLLEGE BUILDING

The location of the College is at one of the most readily accessible points in the city. Within two blocks are stations of the elevated and underground railroads, and the Broadway, Columbus, and Amsterdam Avenue lines connect with nearly all surface lines in the city. The central buildings of the University are reached within fifteen minutes from the door of the College.

The College building was erected in 1894, after a study of the principal buildings of the kind in this country and abroad. So great has been the increase in the applications for admission that it was found necessary in 1923 to provide greater accommodations in the form of an additional connecting building.

In its planning, two principal objects were kept in view: first, provision for a large increase in the membership of the first and second year classes; second, greatly increased and improved facilities for the work of the higher classes. In connection with the latter, extensive provision has been made for research

work, by both Faculty and special students. Our library has also been greatly improved, the entire lower floor of the new building having been reserved for its accommodation.

#### THE LIBRARY

The library is in charge, during College hours, of a trained librarian, who is ready to offer any assistance desired by readers. It contains the important works of reference required in the different departments of instruction, and for the various branches of science taught in the College of Pharmacy. It covers, indeed, a very broad field in all departments of chemistry, botany, and pharmacy.

Should the resources of the College be insufficient for some special purpose, the student has recourse to such great library storehouses as the general Library of Columbia University on Morningside Heights, libraries of the College of Physicians and Surgeons, School of Dental and Oral Surgery, the New York Academy of Medicine, the New York Botanical Garden, and others, and he will also be able, by special arrangement, to borrow from the great library of the Surgeon-General's office at Washington.

The library contains an extensive series of periodicals on chemistry, pharmacy, and botany, with their allied branches. All important journals relating to the work of the College are regularly received.

During regular College hours the library is accessible not only to officers and students of the College, but also to the pharmacists of the city. Under certain regulations, books may be borrowed for outside use, but for obvious reasons important works of reference and unbound periodicals are not loaned. Library copies of the textbooks in use by the College may not be removed from the library.

#### INFORMATION BUREAU

The information bureau conducted by the library staff is designed to furnish pharmacists with data required in emergencies and not available in the library of the average drug store. During the past years of operation the Bureau has met with gratifying success, and it is steadily growing in popularity.

The following paragraphs explain the methods employed in conducting the service.

1. Telephone inquiries will be answered without charge. Residents of Greater New York or vicinity wishing to inquire about some pharmaceutical problem will call up the information bureau, Trafalgar 7-1733, and will receive information immediately if it is accessible.
2. Non-residents will have their problems answered by mail if they enclose a self-addressed stamped envelope.
3. Problems requiring extended research will be handled for a fee as moderate as consistent with high-grade service.
4. Translations of articles from foreign languages, either in full or in abstract, as well as transcripts of papers appearing in English or American pharmaceutical, chemical, or botanical periodicals will be prepared for those desiring to pay for such service.
5. As in the past, all visitors to the library, desiring to do their own research work, will be given courteous attention.

## EMPLOYMENT FOR STUDENTS

The Registrar, so far as possible, assists students to secure such positions, in and about the city, as will not prevent them from regularly attending the College exercises.

Any student wishing to secure employment should, upon entering the College, communicate with the Registrar.

Within easy reach of the College are some three thousand pharmacies, where students who have had some experience in pharmacy may obtain employment with salary sufficient to pay the whole or a large part of their expenses while attending College.

## APPLICATION FOR ADMISSION

Every candidate for admission to the College of Pharmacy is required to file with the Registrar of the College a personal application and a transcript of his high school record, blank forms for which can be had upon application. He is also required to file an approval of his application for a pharmacy student qualifying certificate *before he can be accepted*, and he must secure the apprentice license before his matriculation can be considered complete.

## NEW YORK STATE QUALIFYING CERTIFICATE

To be entitled to a pharmacy student qualifying certificate, the applicant must be at least seventeen years of age, and must have been graduated from an accredited four-year high school course, or have covered courses acceptable to the Department of Education as a full equivalent thereof. A high school or other secondary school course of study will not be considered acceptable unless the applicant has received the school diploma, and unless his or her record includes

English, four years.

Science, two years.

Mathematics, two years.

Foreign language, two years.

History, one year.

Physiology, one-half year (unless the two years of science include biology or general science).

Civics, one-half year.

Sufficient electives to make up a full four-year course aggregating 15 units.

The fulfillment of these requirements must be officially guaranteed by a qualifying certificate issued by the New York State Department of Education. If the applicant is entitled to receive the certificate, he will be so notified by letter; which letter should be presented to the Registrar of the College of Pharmacy. Blank forms for making application for the certificate may be secured either from the Registrar's office or from the Department of Education at Albany.

## APPRENTICE LICENSE

The apprentice license should be applied for when the candidate commences his experience in a pharmacy or drug store. Those who have had no experience before entering the pharmacy school, or whose experience has been in a drug store

or pharmacy outside of New York State, will make application for their licenses through the school during the first week of the course, the Registrar acting as "preceptor." Blank forms for making application for the apprentice license may be secured either from the Registrar's office or from the Board of Pharmacy at Albany, N. Y.

#### HEALTH CERTIFICATE

All applicants for admission to any of the courses given must present an acceptable certificate of health from the candidate's family physician or from the University Medical Officer. In case of doubt an examination by the University Medical Officer will be required. Appropriate blanks are furnished by the Registrar of the College.

#### COURSES OFFERED

Two regular courses of study are offered, known respectively as the College Course and the University Course, and three evening courses in the Departments of Materia Medica, Pharmacy, and Chemistry.

#### THE COLLEGE COURSE

This course now comprises three full years of professional work, and is designed to fit the graduate for meeting the educational requirements of the State Board. Attention is directed to the first paragraph on page 13, under the heading, "State Board Requirements." The fundamental idea of this increase in time is generally accepted as being that of improving the quality of the work done, rather than of providing a large amount of additional work, this improvement applying particularly to the practical features of the course. The precise object of a course leading to the degree of Graduate in Pharmacy being to prepare such graduates for meeting the conditions of service in a retail pharmacy, the greater portion of the increased time has been assigned to the Department of Pharmacy, and to those features of the work of the other departments which are directly contributory thereto. After a careful study of the requirements, we have concluded that the time officially assigned for this course is insufficient, and we have added 128 hours for laboratory work in commercial and dispensing pharmacy.

Experience has shown the value of the courses in microbiology and pharmaceutical sundries which were introduced in the three-year program. While both of these topics are correlated to materia medica, from the teaching standpoint they can be more adequately treated as separate subjects. Through the courtesy of several friends of the College, extensive exhibits of sundries, sick-room supplies, and biological products are gradually being acquired.

#### THE UNIVERSITY COURSE

The Department of Health of the City of New York has placed the Bachelor of Science in Pharmacy, graduating from this course, in the position of being eligible to conduct a bacteriological laboratory or to fill similar positions.

The attention of prospective students is directed to the increasing call for graduates of advanced courses, to fill other professional positions. The general appli-



cation of Federal, state, and municipal food and drug laws is creating a demand for thoroughly trained pharmaceutical inspectors and analysts. The obligations thus imposed upon manufacturers and merchants must result, and are doing so, in compelling them to employ scientifically trained assistants for responsible services which formerly were often left to incompetent and irresponsible employees. For this field of service the ordinary graduate in pharmacy is wholly unqualified.

To meet these higher requirements, three-, four- and six-year courses of study, leading respectively to the degrees of Pharmaceutical Chemist (Ph.Ch.), Bachelor of Science in Pharmacy (B.S. in Phar.), and Doctor of Pharmacy (Phar.D.) have been established.

In response to inquiries frequently received as to the advantages of the University Course over the College Course, the following synopsis has been prepared:

1. To members of the University Class only are open certain of the University privileges.

2. The University Class attends on five days weekly, and the course includes regular work in academic subjects, conducted by special instructors supplied by the Dean of the Faculty of Columbia College.

3. For the University Class, the College provides a thorough course of laboratory instruction in advanced chemistry, pharmacy, and physics and special courses in microscopy and bacteriology, consisting of both theoretical and laboratory instruction.

4. Our graduate course, leading to the degree of Doctor of Pharmacy, is open only to graduates of the four-year University Course.

5. Not only are the degrees of Pharmaceutical Chemist and Bachelor of Science recognized as of higher rank than that of Graduate in Pharmacy, but the three- and four-year courses for which they are awarded qualify its recipients for many lines of pharmaceutical work that are not open to graduates from the College Course.

#### GRADUATE COURSE

This course, leading to the degree of Doctor of Pharmacy, is open to graduates with the baccalaureate degree, conferred by this college or by other schools of pharmacy maintaining equivalent courses of study. The course consists of two full years of study in residence. Thirty hours weekly are occupied in research work in the department representing the major subjects, and three hours weekly in each of the other two departments. For this session, not more than two students will be matriculated in each of the three departments.

### ENTRANCE REQUIREMENTS

#### COLLEGE COURSE

To be eligible for admission, the candidate must be at least seventeen years of age, and must meet the requirements for the pharmacy student qualifying certificate, as outlined on page 15.

## THE UNIVERSITY COURSES

These are courses of full academic years (September to June) leading to graduation with the other departments of the University, and to the degree of Pharmaceutical Chemist, conferred by the University, at the end of the third year, and to that of Bachelor of Science in Pharmacy at the end of the fourth.

The requirements for admission to this course are the same as those for Columbia College. The student must be seventeen years of age, must have graduated from a high school within or outside of the state of New York that is accredited by the Education Department of this state, and must present a pharmacy student qualifying certificate from the Education Department of this state, as outlined on page 15.

Applications for admission to the 1931-1932 session of the University Course should be filed on or before September 8, 1931.

Under this course, two programs are offered, one leading to the degree of Pharmaceutical Chemist, and one to the degree of Bachelor of Science in Pharmacy.

The evidence of adequate preparation for admission to the University Course in the subjects required on the part of candidates who have not completed a year of college work, *includes both examination and school records.*

The subjects which candidates may offer in fulfillment of these requirements are outlined below. (A "unit" implies the study of a subject for a time equivalent to five hours weekly for one year.)

## PRESCRIBED SUBJECTS

All candidates *must* offer:

ENGLISH	{	1 (grammar and composition) . . . . .	2 units
		2 (literature) . . . . .	1 unit
MATHEMATICS	{	<i>ai</i> (algebra to quadratics) . . . . .	1 unit
		<i>aii</i> (quadratics and beyond) . . . . .	1 unit
		<i>c</i> (plane geometry) . . . . .	1 unit

## EITHER

(1) Latin<sup>1</sup> . . . . . 4 units

## OR

(2) { Latin, Greek, French, German, Spanish or Italian . . . . . 3  
 Physics or chemistry . . . . . 1  
 History . . . . . 1 } 5 units

ELECTIVE SUBJECTS, to make up 15 units . . . . . 4 or 5 units

## ELECTIVE SUBJECTS

*Group I*

The candidate may offer any of the following subjects not included among his prescribed subjects, without other restriction than that to offer an advanced subject will involve offering, either at the same time or earlier, the corresponding elementary subject.

<sup>1</sup> Greek, 3 units, may be substituted for Latin, in which case 6 elective units must be offered.

Biology—See Zoölogy	
The English Bible . . . . .	1 unit
Elementary Greek . . . . .	2 or 3 units
Elementary history . . . . .	1 or 2 units
Drawing (freehand or mechanical) . . . . .	1 unit
Music . . . . .	1 unit
Intermediate French . . . . .	1 unit
Intermediate German . . . . .	1 unit
Intermediate Italian . . . . .	1 unit
Intermediate Spanish . . . . .	1 unit
Advanced French . . . . .	1 unit
Advanced German . . . . .	1 unit
Social science . . . . .	1 unit
Advanced Spanish . . . . .	1 unit
Advanced mathematics (College) . . . . .	½, 1 or 1½ units
And in the case of candidates not offering 4 units in Latin:	
Elementary Latin . . . . .	2 or 3 units

*Group II*

The candidate may offer not more than 4 units in all from the four subjects following:

Elementary French . . . . .	2 units
Elementary German . . . . .	2 units
Elementary Italian . . . . .	2 units
Elementary Spanish . . . . .	2 units

*Group III*

The candidate may offer not more than 3 units in all from the six subjects following:

Botany . . . . .	1 unit
Chemistry . . . . .	1 unit
Physics . . . . .	1 unit
Physiography . . . . .	1 unit
Shopwork . . . . .	1 unit
Zoölogy . . . . .	1 unit

## NEW METHOD

Under the "new method," candidates whose school and character records are entirely satisfactory, may meet the examination requirements by means of a psychological test. The school course must include three units in English, three in mathematics (elementary and intermediate algebra and plane geometry), and at least three units in a foreign language, ancient or modern. It must have been concerned primarily with languages, science, mathematics, and history.

## OLD METHOD

Under the "old method," the examination requirements for admission may be satisfied by any one of the three following means, or any approved combination thereof.

1. By the examinations of the College Entrance Board, held in June of each year at Columbia University and at about 150 other educational centers in the United States and abroad.

2. By the examinations conducted at Columbia University in September of each year, by the Director of University Admissions.

(The examination grades in connection with the above two methods are interpreted in the light of the record which students have made in school.)

3. By the examinations given in the high schools by the Education Department of the state of New York to students who have satisfactorily completed certain courses in these high schools. In these examinations, seventy-five per cent will ordinarily be regarded as the lowest passing mark.

For candidates qualifying for admission on the basis of examinations before Columbia University or the College Entrance Board, two methods are open:

a. *Examination in Fifteen Units.* A candidate may offer examinations in fifteen units as evidence of his preparation in secondary school subjects.

b. *Four-Examination Plan.* A candidate who has completed a satisfactory secondary school course with a high degree of proficiency may, by special permission, satisfy the examination requirement by means of "comprehensive examinations" in not less than four subjects including those prescribed for admission.

Candidates entering by the old method are required to take the psychological examination for purposes of record only.

Those contemplating the September, 1931, examinations, must file their applications with the Secretary of Columbia University on or before September 7, 1931. Those who contemplate taking the June, 1932, examinations, must file their applications with the Secretary of the College Entrance Board at 431 West 117th Street, New York, N. Y., early in May. Blank forms of application for either series of examinations may be secured from the respective secretaries.

Every candidate for admission to the University Course should secure a copy of the current Bulletin on Entrance Examinations and Admission which may be had upon application to the Secretary of the University.

#### ADMISSION TO ADVANCED STANDING

Candidates may be admitted to advanced standing only upon a satisfactory record from their school of previous residence. Provided they are eligible for the pharmacy student qualifying certificate required by the New York State Department of Education, candidates who have completed, without condition, corresponding courses in a pharmacy school registered by the State Education Department, are eligible for admission to the second, third, or fourth years, respectively.

#### FEEES

The fees to be paid by students are subject to change at any time in the discretion of the Trustees. The following schedule is in force for the 1931-1932 session or for students accepted in any of the regular courses leading to degrees.

	College Course	University Course
<i>First, Second, and Third Years:</i>		
Registration fee . . . . .	\$5	\$5
Student activities . . . . .	10	10
Breakage deposit . . . . .	10	10
Examination fee . . . . .	10	10
Tuition . . . . .	250	300
Laboratory fees . . . . .	45	60
<i>Fourth Year:</i>		
Registration fee . . . . .		5
Student activities . . . . .		10
Breakage deposit . . . . .		10
Examination fee . . . . .		15
Tuition . . . . .		300
Laboratory fees . . . . .		60
<i>Fifth and Sixth Years, Graduate Course</i>		
Registration fee . . . . .		5
Breakage deposit . . . . .		25
Examination fee . . . . .		20
Tuition . . . . .		350
Laboratory fees . . . . .		60

*Special Courses.* Students desiring to pursue individual courses as special students will be required to pay at the rate of \$7.50 per point.

*Summer Courses.* The fee for any laboratory course is \$25 for first, second, and third year work in the College Course. In the University Course, the fee is \$25 for first and second year work and \$50 for third and fourth year work.

*Evening Courses.* The fees for the various evening courses will be found among the descriptions of these courses, beginning on page 46.

*Books and Supplies.* It is estimated that an expenditure of \$50 will cover the cost of the textbooks and necessary apparatus required for the entire College Course, and of \$75 for the entire University Course for the Ph.Ch. degree. The heaviest expenditure in all cases will be in the first year; many of the required reference works being used also in subsequent years.

#### METHODS OF PAYMENT

##### *Regular Courses*

One of three methods for the payment of the tuition fee for the year may be elected by the candidate, as indicated below. In this connection, it is to be noted that all are required to pay the registration fee, the breakage deposit, the student activities fee and the first installment of the tuition fee at the time of registration. The dates for registration in the various classes will be found in the academic calendar on page 70.

A. Pay in full at the time of registration.

B. Pay one half of the tuition fee at the time of registration, and the balance on or before January 4, 1932. Under this arrangement, an additional \$3 must be added to the first installment.

C. Pay one third of the tuition fee at the time of registration; one third on or before December 5, 1931, and the balance on or before February 8, 1932. Under this arrangement, an additional \$5 must be added to the first installment.

A student electing plan B or C makes himself liable to suspension from further attendance if he fails to meet the payments when due.

Second, third and fourth year students, who register after the last day set for their registration (see Academic Calendar) are required to pay an additional fee of \$5 for late registration.

*Examination Fees.* Dates upon which fees for examination in course are required will be found in the Academic Calendar.

The rate for reëxamination is on the basis of \$5 for each subject in September and \$10 for the entire series in the spring.

*Rebates.* The registration and student activities fees shall not be subject to rebate.

In the case of the total withdrawal of a student from the College, a partial return of the tuition fee may be authorized by the Trustees, but in no case shall more than two thirds of the total charge for that year be returned.

*Special, Summer, and Evening Courses.* Students registering in any of these courses are required to pay the tuition and other fees *in advance*.

## METHOD OF INSTRUCTION

The instruction of each class during the first and second years of the College Courses occupies three days of the week, the alternate days being free for practical experience in the pharmacy. This arrangement provides a source of income, which is a necessity for many of the students of the College. During the third year, an additional half-day must be devoted to work in the pharmacy laboratory. All students who can do so are urged to devote their third year wholly to College work.

For the purpose of more fully elucidating the subjects presented in the lectures and laboratories and of familiarizing the students therewith, and as a test of attention and progress, provision is made for a complete series of recitations or quizzes by a corps of qualified instructors. The order of topics and the manner of their treatment at these recitations follow closely the courses of instruction given by the professors in the respective departments. In order that all the members of the class may be drilled as often and as thoroughly as possible, the classes are divided into sections, the instruction of each section being identical, but conducted at different hours.

## REGULATIONS OF THE BOARD OF TRUSTEES

The rules and regulations stated in this Announcement and those posted on the bulletin boards, signed by the Chairman of an authorized committee, or by the Dean, will govern all students of this College until a new Announcement is issued.

## AUTHORITY OF THE DEAN

The Dean is the executive officer of the Faculty. It is his duty, under the direction of the President, to enforce the rules of the Faculty and of the Board of Trustees and to administer discipline in the case of their violation.

## DEAN'S OFFICE HOURS

Ordinarily the Dean will be found in his office at the hours given below. As he is frequently called out of the city, it is advisable to make important appointments by telephone.

*During College Term*

Tuesday at 2 p. m.

Wednesday to Saturday (inclusive) at 10 a. m.

*During Summer Vacation*

Tuesday, Thursday, and Saturday at 10 a. m.

## REQUIREMENTS FOR ALL REGULAR STUDENTS

*Attendance*

Students are particularly requested to be in attendance at the commencement of the course, in order to obtain full benefit from the lectures. No student will be admitted more than two weeks after the opening of the term, and no member of the third and fourth year classes will be admitted later than one week after the opening, except by special permission of the Faculty.

Every student must attend during at least ninety per cent of the periods assigned to each course pursued. For being late twice at daily opening, the student will be charged with one absence.

*For failure to meet this requirement, the student forfeits the privilege of presenting himself for examination in the course or courses in which the excessive absences occurred.*

*Advancement in Classes*

Advancement from one class to the next requires that the student successfully pass an examination in all the subjects taught during the preceding year, the passing mark being seventy-five per cent, although the Faculty may admit a student to the next class conditioned in a single subject. It is to be particularly noted that in deciding upon the qualifications of candidates, their term's work and their character as students will be given due consideration.

Those students who fail to pass these examinations will be allowed to undergo supplementary examinations to be held as announced on page 70, provided, however, that they did not fail in a majority of their subjects. Students failing in a majority of their subjects will be required to repeat their entire course of that year, provided, however, that such students may be refused readmission if, in the judgment of the Faculty, they are not qualified to be students of this college. A student who fails in a laboratory course must repeat such course successfully before being advanced to the higher class. This work must be done during the summer, except in special cases.

By a regulation of the State Education Department, students failing in more than one subject must make good the deficiency at the school where they so failed. Applicants for the supplementary examination must notify the Registrar on or before September 1, 1931.

Candidates for admission to advanced standing must either pass examinations in all the subjects of the preceding year or must produce evidence of having passed successfully examinations equal thereto.

#### REQUIREMENTS FOR GRADUATION

Every person upon whom a degree is conferred by the College or the University must be of good moral character, and must have complied with all requirements for graduation.

Those who fail to appear for examination (after having handed in their names with the examination fee), or who do not pass satisfactorily, will be allowed to present themselves at the following spring examinations on paying an additional fee of \$10 and complying with all other requirements.

Any student who shall have failed three times in three or more subjects at the final examinations for graduation, shall be required to repeat the entire work of the final year before being again admitted to examination. Should the student again fail at the final examination and at the following supplementary examination, he will not be permitted to continue as a student, or to be examined again. Any student failing three times in one or two subjects, shall be required to repeat the entire work of the final year in such subject or subjects before being again admitted to examination.

All students must obtain a rating of seventy-five per cent or higher in every department in which they may be examined. Any student failing in one or more departments, but not in laboratory courses, may present himself for reexamination therein at the supplementary examination held in September, or at the next regular spring examination. If successful, he will be graduated without reexamination in the other departments. Failure in a laboratory course will necessitate the repeating of that course, which repetition must occur during the summer vacation, except in special cases. See schedule on page 46.

Students of the third year University Class failing in a laboratory course of a single department may be permitted to remove this failure during the Summer Laboratory Session. Students of this class failing in the laboratory courses of more than one department will be required to repeat in full those courses in which they fail, during the next regular session.

#### PRIZES AND SCHOLARSHIPS

*Note.* Competition for the Kappa Psi Prize, the Seabury Scholarship and the Plaut Fellowship is open only to those students who pursue their entire course at this college.

The College reserves the right to withhold the award of any scholarship or prize, if in its opinion, no candidate has exhibited qualifications justifying the award.

**HONOR ROLL.** The College Classes and the University Classes will have separate and distinct honor rolls.



For the College Classes, the roll is limited to thirteen candidates, provided all have secured a general average of 85 per cent or over, and the mean of the ratings secured in the three Departments of Pharmacy, Materia Medica, and Chemistry will be the basis of computation for the general average.

For the University Classes, the roll is limited to three candidates, provided all have secured a general average of 85 per cent or over, and the mean of the ratings secured in the four Departments of Pharmacy, Materia Medica, Chemistry, and the Cultural Courses will be the basis of computation for the general average.

TRUSTEES' PRIZES. The Board of Trustees offers annually, to be presented at Commencement, three prizes of \$100 each, for the highest rating secured in competitive examination in the three Departments of Chemistry, Pharmacy, and Materia Medica. These competitive examinations are open to those members of the graduating class who have attained positions on the honor roll of the College Course. (If the number of these honor students be less than thirteen, a sufficient number of graduates having the next highest averages to make that number will be permitted to compete for these prizes.) A certificate, stating the honor for which the prize has been awarded, is also presented to each of the recipients.

ALUMNI ASSOCIATION PRIZES. The Alumni Fund of the College of Pharmacy provides annually for a gold, a silver, and a bronze medal to be presented at Commencement to the three students having respectively attained the first, second, and third highest standings in all branches taught during the third year of the College Course.

The association also provides for five additional prizes awarded annually on Alumni Day to members of the first and second year classes of the College Course, as follows: *Torsion Balance*, awarded to that second year student who has secured the highest standing during the work of the two years; a copy of *The United States Dispensatory* to that student who has secured the highest standing during the work of the second year; a copy of Rusby, Bliss, and Ballard, *Properties and Uses of Drugs* awarded to that student securing the second highest standing in the work of the second year; a copy of Arny's *Principles of Pharmacy* to that student who has secured the highest standing in the work of the first year, and a copy of Sadtler, Coblentz, and Hostmann's *Pharmaceutical Chemistry* to that student who has secured the second highest standing in the work of the first year.

In the event that the winner of the *Torsion Balance* has the highest record for the second year, then *The United States Dispensatory* and the *Materia Medica* will be awarded respectively to the second and third member of the honor roll.

MAX J. BREITENBACH PRIZE. A cash prize of \$200, accompanied by a certificate, offered annually for the highest proficiency in the junior (third year) University Class. This prize is provided for in perpetuity from the interest of funds bequeathed to the College by the late Max J. Breitenbach, for many years a devoted Trustee.

KAPPA PSI PRIZE. The Gamma Chapter of the Kappa Psi Fraternity offers annually a gold medal to be awarded to that Pharmaceutical Chemist not receiving either the Breitenbach prize or the Seabury Scholarship who attains the highest standing throughout the three years of the course.

**LILLIAN LEITERMAN PRIZE.** A gold medal, offered annually by Miss Lillian Leiterman (1911), to that woman member of the graduating class who has maintained the highest standing throughout the entire three years of the College Course.

**J. LEON LASCOFF PRIZES.** Life membership in the American Pharmaceutical Association and in a state pharmaceutical association, offered annually by Trustee J. Leon Lascoff to the two members of the graduating class in the College Course who have been prominent in student activities, who have maintained a high degree of general scholarship, and who are adjudged by the Faculty to be worthy of such awards.

**TRUSTEES' SCHOLARSHIPS.** To the four students who maintain the highest proficiency in their respective classes during the first and second years of the College and University Courses, the Board of Trustees of the College annually awards scholarships for one year's tuition, to be applied to the following session of their respective courses.

**GEORGE J. SEABURY SCHOLARSHIP.** This scholarship has been founded by Dr. Henry C. Lovis, in memory of his uncle, Mr. George J. Seabury, for many years a member and patron of the College. It provides for the tuition, during the senior (fourth) year of the University Course, of that member of this class who has maintained the highest standing during the three years.

**ISAAC PLAUT FELLOWSHIP.** This fellowship for the encouragement of graduate study and original research was founded by Mr. Albert Plaut, in memory of his father, Isaac Plaut.

Candidates for this fellowship must have secured the degree of B.S. in Pharmacy at this college, and must also possess credit for a year's study of a foreign language, equivalent to that of the first year at Columbia College.

It provides for a year of study at a European school or university by that Bachelor of Science in Pharmacy of this college who will have shown during his full course of study here the greatest taste and aptitude for original investigation. Should no member of a class be deemed worthy of the award, it will be withheld.

The Fellow will be appointed by the Council of the University upon the nomination of the Trustees of the College of Pharmacy. He will attend a foreign institution to be selected by himself and approved by the Faculty of the College of Pharmacy, and will pursue a course of study approved by the Faculty. At the close of his incumbency he will present to the Faculty a written report of his work.

The fellowship payment will be made in three equal installments, one on June 15, one on November 1, and one on March 1, provided that the Fellow continues faithfully to pursue the work undertaken. In case of failure so to do, he will forfeit all further privileges and emoluments conferred upon him by his appointment to the fellowship, and the Trustees of the College of Pharmacy may declare the fellowship vacant.

**LOUIS SPENCER LEVY RESEARCH SCHOLARSHIP.** This scholarship, established in 1928 for a period of two years by Mr. Louis Spencer Levy, will, through his continued generosity, be available for the two years beginning with the session

of 1931-1932. It affords free tuition for two years to that B.S. or Ph.Ch. who is deemed qualified by the Faculty to do research work and who will devote the greater portion of his time to investigations of the effect and usefulness of ultra-violet radiations in the field of essential oils and perfume materials, this work to be done under the direction of the head of the Department of Pharmacy.

**E. R. SQUIBB PRIZE.** This is an annual cash prize of \$100, offered by Messrs. E. R. Squibb and Sons, in memory of Dr. E. R. Squibb. It is awarded to that Graduate in Pharmacy who exhibits the greatest proficiency in analytical chemistry during his third year, as determined by the laboratory records.

**LOUIS DOHME PRIZE.** This is an annual cash prize of \$100, founded by Mr. Ernest Stauffen, in memory of Louis Dohme. It is awarded to that Graduate in Pharmacy who exhibits the best practical knowledge of the drugs of the United States Pharmacopœia and National Formulary, as determined by the laboratory records and examinations.

**JOSEPH WEINSTEIN PRIZE.** This prize consists of a gold medal and is offered by the New York Retail Druggists' Association, in memory of Dr. Joseph Weinstein. It is awarded to that Graduate in Pharmacy who has exhibited the greatest proficiency in analytical chemistry during the three years, as determined by the laboratory records.

**ITALIAN PHARMACEUTICAL ASSOCIATION PRIZE.** This Association offers annually a gold medal to that Graduate in Pharmacy who has obtained the highest general average in practical laboratory work during the third year.

**LEHN and FINK PRIZE.** This prize consists of a gold medal, offered by Messrs. Lehn and Fink, of New York City, for the Graduate in Pharmacy attaining the highest average in the third year examinations in the Department of Pharmacy.

**WESTCHESTER COUNTY PHARMACEUTICAL ASSOCIATION PRIZE.** This Association offers annually a gold medal to that member of the graduating class who has attained the highest general average in the practical laboratory work of the Department of Pharmacy during the three years of the College Course.

**GERMAN APOTHECARY'S ASSOCIATION PRIZE.** In commemoration of its foundation in the year 1851, the German Apothecary's Association offers, annually, a gold medal to be awarded to that member of the graduating class who has exhibited during the final year of the College Course the greatest proficiency in the compounding of prescriptions.

**OLSHANSKY MEMORIAL MEDAL.** This is a gold medal, founded by the students of this college in attendance upon the session of 1923-1924, in memory of their beloved instructor, Jacob Calman Olshansky, whose death occurred during that academic year. This medal is to be awarded annually to that student who has attained the highest average in the final year of the College Course in the subject of dispensing pharmacy.

**DIEKMAN PRIZE.** This prize was founded in 1930 by the Dante Circle, in honor of Dr. George C. Diekman, Professor Emeritus of Pharmacy. It consists of a gold charm, and is awarded to that member of the graduating class who has

attained the highest average in the courses in theoretical pharmacy throughout the three years of the College Course.

NEW YORK STATE PHARMACEUTICAL ASSOCIATION PRIZE. A year's membership offered by the Association to a member of the Honor Roll not winning any other prize.

### SYNOPSIS OF STUDIES FOR THE SESSION OF 1931-1932

#### COLLEGE COURSE

##### *First Year*

		Class Hours	Laboratory Hours	Points
<i>Chm.</i> 1-2	General physics	3	0	6
<i>Chm.</i> 3-4	Inorganic chemistry	3	0	6
<i>Chm.</i> 5-6	Analytical chemistry (qualitative)	0	3	3
<i>MM</i> 1-2	Botany	2	0	4
<i>MM</i> 3-4	Botany laboratory	1	4	6
<i>MM</i> 5-6	Posology	1	0	2
<i>Phr.</i> 1-2	Theory of pharmacy	3	0	6
<i>Phr.</i> 3-4	Manufacturing pharmacy	1	3	5

##### *Second Year*

<i>Chm.</i> 51-52	General physics	1	0	2
<i>Chm.</i> 55-56	Inorganic chemistry	3	0	6
<i>Chm.</i> 59-60	Analytical chemistry (acidic ions and volumetric)	0	3	3
<i>MM</i> 53-54	Pharmacognosy	0	3	3
<i>MM</i> 57-58	Human physiology and hygiene	2	0	4
<i>MM</i> 59-60	Microbiology	1	1	3
<i>Phr.</i> 51-52	Theory of pharmacy	1½	0	3
<i>Phr.</i> 53-54	Pharmaceutical Latin	1½	0	3
<i>Phr.</i> 55-56	Dispensing pharmacy	1	3	5
<i>Phr.</i> 61-62	Commercial pharmacy	3½	0 2	6 1/4

##### *Third Year*

<i>Chm.</i> 103-104	Organic chemistry	3	0	6
<i>Chm.</i> 107-108	Newer remedies	2	0	4
<i>Chm.</i> 109 (110)	Analytical chemistry (advanced volumetric and pharmacopœial assaying)	0	6 <sup>1</sup>	3
<i>MM</i> 101-102	Materia medica	3	0	6
<i>MM</i> 103-104	Toxicology	1	0	2
<i>MM</i> 109-110	Pharmaceutical sundries	1	0	2
<i>Phr.</i> 101-102	Theoretical pharmacy	3	0	6
<i>Phr.</i> 103-104	Theoretical dispensing pharmacy	2	0	4
<i>Phr.</i> 105 (106)	Manufacturing pharmacy	0	6 <sup>1</sup>	3
<i>Phr.</i> 107-108	Dispensing pharmacy	0	4	4
<i>Phr.</i> 109-110	Pharmaceutical jurisprudence and business pharmacy	3	0	6

<sup>1</sup> During 16 weeks.

## UNIVERSITY COURSE

*First Year*

		Class Hours	Laboratory Hours	Points
<i>Chm. 1-2</i>	General physics	3	0	6
<i>Chm. 3-4</i>	Inorganic chemistry	3	0	6
<i>Chm. 7-8</i>	Analytical chemistry (qualitative)	0	3	3
<i>MM 1-2</i>	Botany	2	0	4
<i>MM 7-8</i>	Posology	$\frac{1}{2}$	0	1
<i>MM 9-10</i>	Plant morphology and histology	1	4 $\frac{1}{2}$	6 $\frac{1}{2}$
<i>Phr. 1-2</i>	Theory of pharmacy	3	0	6
<i>Phr. 3-4</i>	Manufacturing pharmacy	1	3	5
<i>Phr. 5-6</i>	Dispensing pharmacy	0	2	2
<i>Eng. 1-2</i>	English	3	0	6
<i>Hist. 1-2</i>	American government	3	0	6

*Second Year*

<i>Chm. 51-52</i>	General physics	1	0	2
<i>Chm. 54</i>	Practical physics	0	4 <sup>2</sup>	2
<i>Chm. 55-56</i>	Inorganic chemistry	3	0	6
<i>Chm. 57-58</i>	Analytical chemistry (acidic ions and volumetric)	0	3	3
<i>MM 55-56</i>	Macroscopic pharmacognosy	0	2	2
<i>MM 57-58</i>	Human physiology and hygiene	2	0	4
<i>MM 61-62</i>	Bacteriology	1	2	4
<i>Phr. 51-52</i>	Theory of pharmacy	1 $\frac{1}{2}$	0	3
<i>Phr. 53-54</i>	Pharmaceutical Latin	1 $\frac{1}{2}$	0	3
<i>Phr. 57-58</i>	Dispensing pharmacy	1	3	5
<i>Phr. 59</i>	Manufacturing pharmacy	0	4 <sup>2</sup>	2
<i>Phr. 61-62</i>	Commercial pharmacy	3 <sup>1</sup>	0 <sup>2</sup>	6 <sup>4</sup>
<i>Ger. 51-52</i>	German	5	0	10

*Third Year*

<i>Chm. 101-102</i>	Theories of chemistry	1	0	2
<i>Chm. 103-104</i>	Organic chemistry	3	0	6
<i>Chm. 106</i>	Analytical chemistry (advanced volumetric, pharmacopœial testing, and urine analysis)	0	16 <sup>1</sup>	10
<i>MM 101-102</i>	Materia medica	3	0	6
<i>MM 103-104</i>	Toxicology	1	0	2
<i>MM 111-112</i>	Microscopic pharmacognosy	$\frac{1}{2}$	1 $\frac{1}{2}$	2 $\frac{1}{2}$
<i>Phr. 109-110</i>	Pharmaceutical jurisprudence and business pharmacy	2	0	4
<i>Phr. 111</i>	Manufacturing pharmacy	0	13 <sup>3</sup>	5
<i>Phr. 113</i>	Practical dispensing pharmacy	0	3 <sup>3</sup>	2
<i>Phr. 115-116</i>	Theoretical pharmacy	3	0	6
<i>Math. 101</i>	Solid geometry	3	0	3
<i>Math. 102</i>	Trigonometry	3	0	3

<sup>1</sup> During 19 weeks.<sup>2</sup> During 16 weeks.<sup>3</sup> During 12 weeks.

## Fourth Year

<i>Chm.</i> 151-152	Inorganic quantitative analysis	1	29 <sup>3</sup>	10
<i>Chm.</i> 153-154	Food analysis and toxicology	1	29 <sup>3</sup>	10
<i>Chm.</i> 155-156	Biological chemistry	1	0	2
<i>MM</i> 152	Applied pharmacognosy	2	21 <sup>3</sup>	6½
<i>MM</i> 154	Botanical taxonomy	0	6 <sup>3</sup>	1½
<i>MM</i> 155-156	Human physiology	1	0	2
<i>Phr.</i> 151-152	Advanced pharmacy	1	0	2
<i>Phr.</i> 153-154	Pharmaceutical assaying	0	7 <sup>3</sup>	7
<i>Bibl.</i> 151-152	Pharmaceutical bibliography	1	0	2

<sup>3</sup> During 8 weeks.

## COURSES OF INSTRUCTION

### CHEMISTRY

**Chemistry 1-2—General physics** (for University freshmen and first year College students). Lectures and recitations 3 hours, 6 points. Professor A. TAUB and instructors.

The first semester of this course covers the subjects of mechanics, the kinetic molecular theory, the properties of matter, heat, wave motion, and sound.

The second semester embraces the subjects of magnetism, electricity and light. Particular consideration is given to the electron theory, electrolysis, ionization of gases, spectroscopy and polarization.

The lectures are abundantly illustrated with experiments, the College possessing a fine set of modern physical apparatus.

Textbook: Stewart, *College Physics*.

**Chemistry 3-4—General inorganic chemistry** (for University freshmen and first year College students). Lectures and recitations 3 hours, 6 points. Professors H. V. ARNY, A. TAUB, and instructors.

This course, the beginning of consecutive instruction in chemistry covering three years, is given to the first year students of both the College and the University Classes. It opens with a careful consideration of the fundamental principles of chemistry followed by a discussion of the non-metals and their compounds from their cultural, technical, and pharmaceutical viewpoints.

Textbooks: Deming, *General Chemistry*, second edition; *U. S. Pharmacopæia*.

**Chemistry 5-6—Analytical chemistry** (first year College students). Laboratory 3 hours, 3 points. Professors H. H. SCHAEFER, L. JAYNE and instructors.

The course in analytical chemistry consists of laboratory instruction and is attended by the class in sections. Each student is provided with the necessary equipment, and is required to perform all the operations involved in qualitative chemical analysis. The uses of apparatus, the actions of reagents, and the proper manner of bringing about chemical reactions are illustrated and explained. On account of the fundamental importance to the true understanding of the subject the simple laws governing chemical action in solution and the formation of precipitates, the nature of solution, etc., are explained to the student. At first, and under the guidance of the teacher, the characteristic reactions of the basic components are studied in solution, or in the solid at a high temperature. The phenomena observed are interpreted and discussed, and the conclusions recorded. Later, the reactions are represented by equations. The value of grouping is utilized and separations and identifications of group members are performed. Finally, all facts required by direct observation are brought together in the systematic procedure for analysis of mixtures. In this recapitulation, individual effort is stimulated by independent work on unknown samples.

Textbook: Schaefer and Bliss, *Qualitative Chemical Analysis*.

**Chemistry 7-8—Analytical chemistry** (for University freshmen). Laboratory 3 hours, 4 points. Professor H. C. KASSNER and instructors.

The student will first be made familiar with laboratory processes by means of a course of experiments in general chemistry, involving the isolation of certain elements, a study of their physical and chemical properties, and of their principal compounds. Simple laws and phenomena will be explained to the student in the course of this work. In this way, experience in manipulation and a true understanding of the subject will be obtained.

This preliminary course leads to a systematic course in qualitative analysis and during the first year the reactions of the basic ions are studied. The student is taught the separation and identification of these, and finally is required to analyze systematically solutions containing two or more basic ions.

Textbook: Scott, *Elements of Qualitative Chemical Analysis*; Scott, *Qualitative Analysis*.

**Chemistry 51-52—General physics** (for University sophomores and second year College students). Lectures and recitations. 1 hour, 2 points. Professors H. H. SCHAEFER and A. TAUB.

This course is a continuation of *Chemistry 1-2* (general physics) and embraces the subjects of magnetism, electricity, and light. Special consideration is given to ionization, electrolysis, the electron hypothesis, vacuum tubes, the spectroscope, spectrum analysis, double refraction, and the polariscope.

The lectures will be accompanied and made more interesting by many exhibitions and experiments.

Textbook: Stewart, *College Physics*.

**Chemistry 54—Practical physics** (for University sophomores). Laboratory course 4 hours for  $\frac{1}{2}$  year, 2 points. Professor A. TAUB and instructors.

The course consists of sixteen half-day periods of four hours each, given during the second half of the year.

This work consists of experiments in fundamental physical measurements followed by special work in mechanics, heat, light, sound, and electricity. The laboratory is equipped not only with apparatus for routine exercises, but has the appliances necessary for work in colorimetry, spectroscopy, spectrophotometry, refraction, calorimetry, and electrochemistry.

**Chemistry 55-56—Inorganic chemistry** (for University sophomores, and second year College students). Lectures and recitations 3 hours, 6 points. Professors H. V. ARNY, A. TAUB, and instructors.

This course, a continuation of *Chemistry 3-4*, will be devoted to a consideration of the metallic elements and their compounds. It will open with a discussion of ionization and throughout the course, all of the more important principles of theoretical inorganic chemistry, such as the modern theories concerning valence, chemical equilibrium, oxidation, reduction and atomic structure, will be discussed. In descriptive chemistry, the course will consider all of the more important metallic elements and their salts. These will be discussed from the standpoint of modern industrial chemistry.

Textbook: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition.

**Chemistry 57-58—Analytical chemistry** (for University sophomores). Laboratory course 3 hours, 3 points. Professor H. C. KASSNER and instructors.

The course in qualitative analysis begun in the first year is continued through the first half of the second year. The sequence of work is as follows:—(1) the study of the acidic-ions according to an analytical scheme of separation; (2) a systematic method of preliminary testing of unknown compounds; (3) the preparation for analysis of water-insoluble substances; and (4) the complete qualitative analyses of unknown solutions or powders containing two or more compounds.

The second half of the year's work is devoted to a course in volumetric analysis. This begins with the study of general principles and theoretical considerations, the theory of indicators, pH values and the use of the analytical balance. It continues with the preparation of certain volumetric solutions and their uses in quantitative analysis by (1) neutralization, (2) precipitation, (3) oxidation and reduction, and (4) iodometry.

Textbooks: Scott, *Elements of Qualitative Chemical Analysis*; Scott, *Qualitative Analysis*; U. S. *Pharmacopœia*; Jenkins and DuMez, *Quantitative Pharmaceutical Chemistry*.

**Chemistry 59-60—Analytical chemistry** (second year College students). Laboratory course 3 hours, 3 points. Professors H. H. SCHAEFER, L. JAYNE, and instructors.



The first half of the second year course is devoted to completing the instruction in qualitative analysis. The discussion of the simpler fundamental laws governing chemical and physical changes in solution, begun in the first year, are followed to conclusion. The preliminary testing and preparation of a sample for analysis, involving solution in solvents other than water, and the procedure for analysis of substances insoluble in water and acids, are studied and practiced. The greater part of the time is devoted to the study of the acidic components.

The second half of the school year is devoted to the theory and practice of volumetric analysis. The proper preparation of volumetric solutions is given consideration and all types of U. S. P. volumetric assays are conducted. The theories of indicators are presented and considerable time is devoted to the calculations involving a knowledge of volumetric analysis.

Textbooks: Schaefer and Bliss, *Qualitative Chemical Analysis*; U. S. Pharmacopœia.

**Chemistry 101-102—Theories of chemistry** (for University juniors). Lectures and recitations 1 hour, 2 points. Professor H. H. SCHAEFER.

The object of this course is to bring together, to correlate and to elaborate somewhat the various theories presented to the student in the regular chemistry and physics lectures. Consideration is given to the kinetic theory, the gas laws, the laws governing change of state, the quantitative laws of chemical combination, the atomic hypothesis, the laws of valence, the periodic system, radioactivity, atomic disintegration, atomic structure, solubility, ionization, indicators, equilibrium, electrochemistry and colloids.

Special importance is placed upon the practical application of modern theories of physical chemistry to analytical processes and methods.

Textbook: Chapin, *College Chemistry*.

**Chemistry 103-104—Organic chemistry** (for University juniors and third year College students). Lectures and recitations 3 hours, 6 points. Professors H. V. ARNY, A. TAUB, and instructors.

This course, a continuation of *Chemistry 3-4* and *55-56*, will be devoted to a comprehensive study of the carbon compounds, special care being taken to keep the course abreast the new applications of organic chemistry in pharmacy and medicine. The preparation of the more common organic chemicals is given careful consideration and advances under modern methods of research are presented to the class as they are reported.

All the official and the more important unofficial organic pharmaceutical chemicals and medicinal products, notably the newer synthetic remedies, are taken up and classified according to their position in the various organic groups. By this method of classification the subject of organic pharmaceutical chemistry is presented in the same sequence as that of general organic chemistry.

Textbook: Sadler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition; U. S. Pharmacopœia.

**Chemistry 106—Analytical chemistry and urine analysis** (for University juniors). Laboratory, 16 hours for 19 weeks, beginning December 14, 1931, 10 points. Professor H. C. KASSNER and instructors.

During the first part of the course, the student is supplied with pure and adulterated samples of official organic chemicals and is required to test them for identity and purity to determine whether they conform to the requirements of the Pharmacopœia, each sample studied representing a typical class of organic compound. This work also involves the determination of congealing, boiling and melting points, fractionations, alcoholometric estimations and other determinations of like character.

The second section of the course is devoted to volumetric analysis, the solutions used being prepared and standardized by the student. The substances assayed include antiseptics, disinfectants, ointments, volatile oils, etc.

The third part of the year's work deals with the assaying of vegetable drugs, including the determination of alkaloids in crude drugs and their pharmaceutical products, crude fiber, soluble extractive, etc.

The above course is concluded with certain miscellaneous assays. The final period is devoted to the analysis of urine.

Textbooks: U. S. Pharmacopœia; Weston, *Carbon Compounds*; Coleman and Arnall, *Organic Compounds*; Jenkins and DuMez, *Quantitative Pharmaceutical Chemistry*.

**Chemistry 107-108—Newer remedies** (third year College students). Lecture and recitations 2 hours, 4 points. Professor H. H. SCHAEFER and instructors.

The aim of this course is to make the students familiar with the many preparations generally classified as "synthetics" which are prescribed by physicians but which are not official. Most of these preparations are rather recent additions to our materia medica and many of them are covered by patents. The products are not selected because of their medicinal merit but rather because of the frequency with which they are prescribed. Not only will the chemistry of these preparations be considered, but whenever possible, original packages will be shown to the students and the names of their manufacturers given.

Textbook: *New and Non-official Remedies*.

**Chemistry 109—Analytical chemistry** (third year College students). Laboratory 6 hours for  $\frac{1}{2}$  year, 3 points. Professors H. H. SCHAEFER, L. JAYNE, and instructors.

This course will be given in six-hour periods to one section during the first half year and to the other section during the second half. This will enable the student to perform operations which require more time than is available in the usual three-hour period. The course will be devoted entirely to pharmaceutical testing and assaying. Some of the more important operations to be carried out are:—The preparation and standardization of volumetric solutions, testing the purity and strength of official chemicals and galenicals, selected gravimetric determinations, iodine values, saponification values, examination of oils, identification of alkaloids. The assay of crude drugs will be given special attention by dividing the section into still smaller groups for this work thus insuring better and more careful supervision. Practice will of course be given in the use of the analytical balance.

Textbooks: *United States Pharmacopœia and National Formulary*.

**Chemistry 110—Same as Chemistry 109**, but given during the second half of year.

**Chemistry 151-152—Inorganic quantitative analysis** (for University seniors). Lectures 1 hour a week for 32 weeks, laboratory, 29 hours a week for 8 weeks, beginning September 21, 1931, 10 points. Professor H. C. KASSNER and instructors.

The aim of this course is to train the student to carry out with precision many of the more difficult analyses of chemical and pharmaceutical products.

The laboratory work of the course consists, in the main, of a series of selected gravimetric determinations covering a wide field of substances, chosen to illustrate typical methods of procedure. This work is supplemented by operations involving the use of the viscosimeter, bomb calorimeter, etc.

In the lecture course, methods of quantitative analysis, gravimetric, volumetric, colorimetric, etc., are discussed at length and compared.

Reference books: Scott, *Standard Methods of Chemical Analysis*; Hillebrand and Lundell, *Applied Inorganic Analysis*.

**Chemistry 153-154—Food analysis and toxicology** (for University seniors). Lectures 1 hour a week for 32 weeks, laboratory 29 hours a week for 8 weeks, beginning November 16, 1931, 10 points. Professors H. V. ARNY, H. C. KASSNER, and instructor.

In order to give every advantage to the instruction in this department during the fourth year, the College has provided very complete apparatus, which supplies the very best facilities that modern science affords.

The work in this department will cover the following courses:

1. Analysis of various foodstuffs, including milk, butter, flavoring extracts, etc.
2. Chemical and sanitary examination of water.
3. Isolation and detection of organic and inorganic poisons.

In addition to the laboratory work just outlined there will be a lecture course describing the various chemical and physical methods of food examination.

Textbooks: Leach, *Food Analysis*; Mason, *Examination of Water*.

Reference Books: Allen, *Commercial Analysis*; Autenrieth-Warren, *Detection of Poisons*.

**Chemistry 155-156—Biological chemistry** (for University seniors). Lectures 1 hour, 2 points. Professor M. KARSHAN.

The instruction in inorganic and organic analysis relates to the examination of substances disconnected from the living body, but the competent analyst must be prepared to consider and act upon a knowledge of the natural changes which substances undergo when absorbed into the living body, as well as the natural products there originating.

## MATERIA MEDICA

**Materia Medica 1-2—Botany** (for University freshmen and first year College students). Lectures and recitations 2 hours, 4 points. Professor F. HART and instructors.

The object of this course is to prepare the student for an understanding of that part of materia medica which relates to vegetable drugs. In the limited time allotted to this study, it is impossible to pursue it in all its departments, and attention is concentrated upon such instruction as will fit the student for professional work in pharmacy. The instruction includes a brief consideration of plant life in general and the evolution of the higher plants from those of a simpler nature. The major portion of the time available is devoted to the morphology of the higher plants from which nearly all of our vegetable drugs are derived, the terms used in official descriptions, systems of classification, and botanical nomenclature.

Textbook: Rusby, *Manual of Botany*.

**Materia Medica 3-4—Botany laboratory** (first year College students). Lectures and recitations 1 hour, laboratory 4 hours, 6 points. Professors C. W. BALLARD, F. HART, H. TAUB, and instructors.

This course affords opportunity for personal observations supplemental to the theoretical training of the botany lectures (*MM 1-2*) and is a preparation for the study of pharmacognosy. The course is divided into three parts as follows:

General: A brief résumé of the developmental sequence of plant life from the single-celled forms to the seed-bearing plants.

Morphology: A detailed study of the various organs of the seed-bearing plants and involving dissection of these parts both with and without the aid of the simple microscope.

Histology: As ability to use a microscope properly is the foundation of success in all branches of microscopy, first attention is given to a consideration of the parts and methods of using the instrument.

The course under the direction of Professor BALLARD includes the study of plant tissues and the various types of cell contents. A physiological grouping of the tissues is followed by detailed study of the forms, modifications, locations, functions and differences in chemical constitution of the cellular elements concerned in protection, support, absorption, transportation, synthesis, and storage. The organic and inorganic cell contents are classified; details of their synthesis are considered and the more commonly used microchemical tests are demonstrated. This work is followed by a detailed study of the arrangement of cells and disposition of cell contents in the various parts and organs of the plant.

Textbooks: Ballard, *Elements of Vegetable Histology*, 2d Edit.; Ballard and Hart, *Laboratory Manual*.

**Materia Medica 5-6—Posology** (first year College students). Lectures and recitations 1 hour, 2 points. Professor H. TAUB.

The average dosage of U. S. P. and N. F. drugs is considered with the object of teaching the student to recognize an overdose in actual prescription practice. The course covers the recognition of safe and dangerous prescriptions, approximate equivalents and conversion methods from one system into the other, and dosage of non-official but commonly prescribed synthetic remedies.

**Materia Medica 7-8—Posology** (for University freshmen). Lectures and recitations  $\frac{1}{2}$  hour, 1 point. Professor H. TAUB.

The relationship in dosage of chemically similar substances and botanically related drugs is considered during the first portion of the course; the material of the College Course is given in brief in the latter half.

**Materia Medica 9-10—Plant morphology and histology** (for University freshmen). Lectures 1 hour, laboratory  $4\frac{1}{2}$  hours,  $6\frac{1}{2}$  points. Professors C. W. BALLARD, F. HART, H. TAUB, and instructors.

This course corresponds substantially to certain courses in Columbia College (*Botany 1-2, 3-4, 5105*) and in addition includes the more specialized treatment of morphology and histology requisite for the study of pharmacognosy.

**Morphology:** The laboratory course in morphology is designed to supplement the lectures in pharmaceutical botany (*Materia Medica 1-2*). It affords practical training in simple plant dissection, both with and without the dissecting microscope, thereby illustrating the topics considered in the above lecture course and fitting students for the advanced studies of pharmacognosy and taxonomy.

**Histology:** This section of the course includes a systematic review of one or more representative orders of the Thallophyta, Bryophyta, Pteridophyta, and Spermatophyta. The chief object is the tracing of the origin and development of the various tissues and organs occurring in the higher plants. This is followed by a detailed study of the various cellular elements, considered both as individual tissues and as integral parts of plant organs.

**Textbooks:** Ballard, *Elements of Vegetable Histology*, 2nd Edit.; Ballard and Hart, *Laboratory Manual*; Rusby, *Manual of Botany*; Curtis, *Nature and Development of Plants*.

**Materia Medica 53-54—Pharmacognosy, macroscopic and microscopic** (second year College students). Laboratory 3 hours, 3 points. Professor H. TAUB, and instructors.

**Macroscopic:** This part of the course comprises laboratory instruction in the classification, identification and description of the vegetable drugs of the U. S. Pharmacopœia and National Formulary. The drugs and medicinal products of vegetable origin are grouped according to the parts of the plant from which they are derived and further classified on the basis of medicinal constituents. Each drug receives separate attention in the laboratory and the following details are considered—titles under which the drug is known; botanical, geographical and commercial sources; official description, definition, and prevailing standards; liability to adulteration or substitution; preparation for market and proper means of preservation or storage.

Each student receives a typical specimen of the drug under consideration and must retain the same for future reference. At the completion of the course each student possesses a collection of the official crude drugs as his personal property. Proficiency in the identification of the drugs studied is determined by practical examinations at short intervals during the term. A knowledge of botany (*Materia Medica 1-2, 3-4* or equivalent) is prerequisite to a proper understanding of the work in this course.

**Textbooks:** Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*.

**Microscopic:** The preliminary work of this part of the course will consist of a brief review of the cellular elements and cell contents in the parts of plants used as drugs or foods. In this manner the work in vegetable histology of the first year (course *Materia Medica 3-4*) is coordinated to the more detailed study of microscopical pharmacognosy. Powders prepared from drugs representing different parts of the plant will be used as material for study. By utilization of the sections prepared in the first year it will be possible, in many instances, for the student to compare the section with the powder and thus observe the disposition of the cellular elements *in situ* and the changes in appearance incidental to powdering. The number of specimens studied is necessarily limited by the amount of time which can be given to the work but the subject matter of the course is so arranged that representative rather than extraordinary types are considered. The student is expected to construct and use analytical keys in the identification of the powdered materials examined. Progress

in course is determined by a series of practical examinations at short intervals throughout the year and the student must record his observations by drawings made from his specimens.

Textbooks: Ballard, *Elements of Vegetable Histology*, 2d Edit.; Ballard and Hart, *Laboratory Manual*.

**Materia Medica 55-56—Macroscopic pharmacognosy** (for University sophomores). Laboratory 2 hours, 2 points. Professor H. TAUB.

This course includes all of the instruction offered in macroscopic pharmacognosy, *Materia Medica 53-54*, but in addition many non-official articles of commercial and technical importance are studied. Experience in manufacturing fields has shown that these non-official drugs and drug materials are in frequent use and familiarity with them is especially important in view of their non-inclusion in the Pharmacopœia and National Formulary.

Textbooks: Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*; Youngken, *Pharmacognosy*.

**Materia Medica 57-58—Human physiology and hygiene** (for University sophomores and second year College students). Lectures and recitations 2 hours each, 4 points. Professor H. H. RUSBY and instructors.

In addition to the skill in pharmacognosy required for the selection of drugs, the educated pharmacist is required to possess some general information concerning the properties and uses of the materials which he is engaged in handling and dispensing; that is, of the general classification of medicines. As such classification depends directly upon their physiological properties, a limited and specialized course of instruction in human physiology is provided.

The method consists in so arranging the order of subjects that the student shall be led from the very first lesson to see the manner in which disordered bodily functions may be restored to a healthy condition by the action of medicines, and leads to the immediate classification of the more important remedies, in connection with the study of the organs or systems to the functions of which they apply. While this method gives an accurate knowledge of the facts involved, it permits of the exclusion of a large portion of the subject of physiology, and reduces to a minimum the amount of time expended in acquiring such a knowledge of this department of materia medica as is properly required of the practicing pharmacist.

Textbook: Bachman and Bliss, *Essentials of Physiology*.

**Materia Medica 59-60—Microbiology** (second year College students). Lectures and recitations 1 hour, laboratory and demonstrations 1 hour, 3 points. Professor F. HART and instructors.

This subject constitutes an introduction to the nature, behavior and effects of microorganisms, especially of bacteria. Without entering upon the subject of practical laboratory bacteriology, as is done in the University Course, it discusses the life history of bacteria, and the part that they play in fermentation and decomposition, as well as in disease, and indicates the general nature of the means employed in combating them, and treats of biological products. The subject of sterilization, as employed in the pharmacy, and the principles of antiseptics and immunization are studied.

**Materia Medica 61-62—Bacteriology** (for University sophomores). Lectures 1 hour, laboratory 2 hours, 4 points. Professor F. HART and instructors.

A separate and fully equipped bacteriological laboratory is maintained, and practical work in this important field is taken up. The general principles of the science are taught, and the students cultivate, stain, and study the more important microorganisms. Laboratory methods in the bacterial examination of water, air, milk, ice, sputum and excreta are given, and methods of disinfection and sterilization are practically demonstrated. The course includes the microscopy of the blood with special emphasis on the structural differences of that tissue in health and disease.

Textbook: Park and Williams, *Pathogenic Microorganisms*.

**Materia Medica 101-102—Materia medica** (for University juniors and third year College students). Lectures and recitations, 3 hours, 6 points. Professor H. H. RUSBY and instructors.

This course includes instruction in both the inorganic and organic divisions of drugs. In connection with the extension of our course to three years, the instruction in materia medica has been completely reorganized and a new textbook has been written for the students. In the new arrangement, the drugs have been classified in accordance with their medicinal uses. Discussion of the individual drugs covers the official titles, abbreviations, definitions and standards, origin, preparation, preservation, variations in quality and causes of such variation, constituents, properties and uses, preparations and doses. All instruction in description, structure and identification, and the detection of adulterants and impurities is referred to the extensive course in pharmacognosy.

Textbook: Rusby, Bliss and Ballard, *Properties and Uses of Drugs*.

**Materia Medica 103-104—Toxicology** (for University juniors and third year College students). Lectures and recitations, 1 hour, 2 points. Professor H. H. RUSBY and instructors.

The classification of poisons is based upon the physiological action of medicines, taught in the preceding year, and is synoptically presented at the beginning of the course in materia medica. The toxicology of the individual drugs is then taken up in detail in connection with their physiological action and medicinal uses. Experience has shown that by this method the modes of occurrence of poisoning accidents, the poisonous doses, the action of poisons and their rational treatment, are all made more intelligible to the student, and are better impressed upon his memory, than by treating the subject as entirely disconnected from that of materia medica.

Textbook: Rusby, Bliss and Ballard, *Properties and Uses of Drugs*.

**Materia Medica 109-110—Pharmaceutical sundries** (third year College students). Lectures 1 hour, 2 points. Professor C. W. BALLARD.

This course includes a systematic presentation of the facts of interest to the retail pharmacist in the use and sale of the ordinary sick-room sundries. The course is thus linked with materia medica on the one hand and commercial pharmacy on the other. Among the topics considered are: bandaging and dressing materials, rubber sundries, glass and metal appliances, ligatures and first-aid apparatus.

**Materia Medica 111-112—Microscopic pharmacognosy** (for University juniors). Lectures  $\frac{1}{2}$  hour, laboratory  $1\frac{1}{2}$  hours,  $2\frac{1}{2}$  points. Professor H. TAUB and instructors.

This course consists in a detailed study of the histological structure of the several plant organs, followed by a consideration of the characters and adulterants of the commonly used powdered drugs. It includes the preparation of specimens both in sectioned and powdered forms and the application of stains and microchemical tests to the materials so prepared.

Textbook: Ballard, *Laboratory Manual*.

**Materia Medica 152—Applied pharmacognosy** (for University seniors). 2 hours lecture, 21 hours laboratory for eight weeks beginning March 21, 1932,  $6\frac{1}{2}$  points. Professors C. W. BALLARD, H. TAUB, and instructor.

The object of this course is instruction in the methods of applying the principles of microscopy to practical problems apt to be encountered in the average commercial laboratory. The introductory work will consist of a consideration of the general methods employed in microanalysis and the uses of the more common accessories, including polarizing apparatus, measuring apparatus, counting chambers, dark field and vertical illumination. Each student is required to prepare sections of the various types of vegetable materials, using these sections for the demonstration of staining procedures and microchemical reactions. This will be followed by practical and individual work in the qualitative determination of typical drugs and mixtures to which microanalytical methods are applicable. During this work, it is expected that the student will avail himself of the library facilities of the College and freely use the economic drug and food collections of the laboratory for reference and comparison purposes. The aim is to duplicate actual commercial laboratory conditions and to train the worker to depend upon himself. The materials used for teaching purposes will, so far as possible, be commercial products which have been analyzed by microscopical methods.

References: Youngken, *Pharmacognosy*.

**Materia Medica 154—Botanical taxonomy** (for University seniors). 6 hours laboratory for eight weeks beginning March 21, 1932. 1½ points. Professor H. H. RUSBY.

A good working knowledge of the terms used in descriptive botany, such as can be gained by a study of Rusby, *Manual of Botany*, will be found a sufficient preparation for this course.

The object of this course is to present a general idea of the system of flowering plants, and of their classification and determination by the use of descriptive works. The work consists of the laboratory study of types of the principal families, especially those rich in medicinal and poisonous species.

Textbook: Rusby, *Manual of Botany*.

References: Bentham and Hooker, *Genera Plantarum*; Engler and Prantl, *Pflanzenfamilien*.

**Materia Medica 155-156—Human physiology** (for University seniors). Textbook and conferences 1 hour, 2 points. Dr. A. HOPPING.

This course consists of a series of discussions, based on assigned reading, occupying 1 hour weekly throughout the term.

Textbook: *Physiology*.

## PHARMACY

**Pharmacy 1-2—Theory of pharmacy including metrology and operative pharmacy** (for University freshmen and first year College students). Lectures 2 hours, recitation 1 hour. 6 points. Professors C. P. WIMMER, L. N. BROWN, H. M. CARTER, and instructors.

The purpose of this course is to introduce the student to the fundamentals of pharmaceutical science. It comprises the study of elementary pharmaceutical operations, such as heating, evaporation, sublimation, distillation, solution, crystallization, precipitation, filtration, etc. It also includes the study of the general principles involved in the manufacture of the various classes of pharmaceutical compounds, such as the fluid extracts, tinctures, syrups, elixirs, etc.

A series of lectures is devoted to a brief study of the historical development of pharmacy, beginning with the Egyptian age and tracing it through the Greek, Roman, Arabic, and European periods up to the present time. Special stress is laid upon the development of pharmacy in the United States, upon its position in the economic life of the nation; its organization; the accomplishments, aims and purposes of the various pharmaceutical associations; the pharmaceutical code of ethics.

The lectures on metrology comprise the study of the various systems of weights and measures and of their relationships to each other; specific gravity and its uses in pharmacy; thermometric scales, etc.

Textbooks: *U. S. Pharmacopœia X*; Arny, *Principles of Pharmacy*; Sturmer, *Pharmaceutical Arithmetic*.

**Pharmacy 3-4—Manufacturing pharmacy laboratory** (for University freshmen and first year College students). Laboratory course 3 hours, recitation 1 hour. 5 points. Professors L. N. BROWN, H. M. CARTER, J. S. DORFMAN, and instructors.

The work of this course affords students the opportunity to apply practically their theoretical knowledge of the processes of calcination, distillation, sublimation, crystallization, purification, and granulation of salts, and the determinations of specific gravity, solubility of salts and alcoholic content of liquids. It also includes the manufacture of tinctures, fluid extracts, and extracts by percolation, and the preparation of various classes of galenicals and the more simple types of chemical preparations.

Textbooks: Diekman and Wimmer, *Manufacturing Pharmacy Laboratory Notes* and *U. S. Pharmacopœia*.

**Pharmacy 5-6—Dispensing pharmacy laboratory** (for University freshmen). Laboratory course 2 hours. 3 points. Professor H. M. CARTER and instructors.

The work of this course is similar in scope, covering laboratory work and instruction, as outlined under *Pharmacy 55-56*.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; *U. S. Pharmacopœia* and *National Formulary*.

**Pharmacy 51-52—Theoretical pharmacy including pharmaceutical arithmetic** (for University sophomores and second year College students). Lecture 1 hour, recitation  $\frac{1}{2}$  hour. 3 points. Professors C. P. WIMMER, L. N. BROWN, and instructors.

This course is devoted to the study of pharmaceutical arithmetic in its various aspects. It comprises the study of proportions, percentage, alligation, reducing and enlarging formulæ, etc., as used in both manufacturing and dispensing pharmacy.

During the second semester the study of the official preparations is begun and carried along through the fluid extracts, extracts, tinctures and other preparations made directly from vegetable drugs.

Textbooks: Sturmer, *Pharmaceutical Arithmetic*; *U. S. Pharmacopœia*; *National Formulary*.

**Pharmacy 53-54—Pharmaceutical Latin** (for University sophomores and second year College students). Lecture 1 hour, recitation  $\frac{1}{2}$  hour. 3 points. Professor J. S. DORFMAN and instructors.

This course is devoted to the study of pharmaceutical Latin. The work is divided as follows: (A) Study of the principles of etymology and syntax; (B) systematic study of Latin vocabulary including official Latin titles, botanical nomenclature and abbreviations with special reference to the formation of words and their relative importance to pharmacy; and (C) practice in prescription writing, necessary to an intelligent understanding of Latin used in prescriptions.

Textbooks: Sturmer, *Pharmaceutical Latin*; *U. S. Pharmacopœia*; *National Formulary*.

**Pharmacy 55-56—Dispensing pharmacy laboratory** (for second year College students). Laboratory course 3 hours, recitation 1 hour. 5 points. Professors L. N. BROWN, J. S. DORFMAN, and instructors.

The first semester embraces general methods of compounding pills, troches, bacilli, emulsions, ointments and suppositories. It includes theoretical instruction and training in practical work emphasizing the habits of accuracy and neatness.

The second semester deals more especially with prescriptions and includes the compounding and dispensing of the various types requiring technical knowledge and skill. Consideration is given to tablet triturates, mucilages, mixtures, and filling of capsules, cachets, collapsible tubes, etc. General instruction is given in the reading and interpretation of prescriptions, the recognition of the various constituents of their ingredients together with the proper methods and manner of dispensing them.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; Scoville, *The Art of Compounding*; *U. S. Pharmacopœia* and *National Formulary*.

**Pharmacy 57-58—Dispensing pharmacy laboratory** (for University sophomores). Laboratory course 3 hours, recitation 1 hour. 5 points. Professor H. M. CARTER and instructors.

This course is a continuation of the work in the dispensing laboratory of the first year involving thorough laboratory work and instruction in the preparation and dispensing of mixtures, adjusted solutions, pastilles, lamels, compressed tablets, powders, crayons, medicated gauzes, cottons, etc. During the second semester the laboratory practice deals particularly with the various phases of prescription dispensing, such as prescription writing and checking, labeling, wrapping, pricing, and delivery, etc.



Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; Scoville, *The Art of Compounding*; U. S. Pharmacopœia and National Formulary.

**Pharmacy 59—Manufacturing pharmacy laboratory** (for University sophomores). Laboratory course 4 hours, 16 weeks beginning September 23, 1931. 3 points. Professor H. M. CARTER and instructors.

This course deals with the manufacture of the more important pharmaceutical preparations of inorganic and organic nature thus giving laboratory practice and technique preliminary to the work of the manufacturing laboratory in the third year.

Textbooks: Diekman and Wimmer, *Manufacturing Pharmacy Laboratory Notes*; U. S. Pharmacopœia.

**Pharmacy 61-62—Commercial pharmacy** (for University sophomores and second year College students). Lecture 1 hour, recitations 2 hours. 6 points. Professor F. D. LASCOFF.

This course in commercial pharmacy is designed to give the student a practical knowledge of the basic principles that underlie the successful management of a business. Owing to a lack of knowledge of these principles, many pharmacists have failed to achieve the degree of success to which their professional knowledge and training entitle them.

The course consists of all the activities incidental to the opening and operation of a retail drug store, including the choice of location, the elements of business administration and store management, insurance, problems of retail merchandising, including the value of discounts, banking, principles of advertising and salesmanship, business correspondence as well as the elements of systematic bookkeeping.

The accounting records are the basic source of data for business management. Accordingly, the course in commercial pharmacy will partially be devoted to the principles underlying the making and interpretation of these records.

**Pharmacy 101-102—Theoretical pharmacy** (for third year College students). Lectures 2 hours, recitation 1 hour. 6 points. Professor C. P. WIMMER and instructors.

During the first semester, the study of the U. S. Pharmacopœia and National Formulary galenical preparations is continued and completed. Their methods of preparation are individually studied and the reasons for each step taken in their preparation are given. The second semester is devoted to the study of non-official important galenical, cosmetic and toilet preparations, as well as to the study of the pharmacy of individual substances used in prescriptions.

Textbooks: U. S. Pharmacopœia; National Formulary V; American Pharmaceutical Association *Recipe Book*.

**Pharmacy 103-104—Theoretical dispensing pharmacy** (for third year College students). Lectures 1 hour, recitation 1 hour. 4 points. Professor C. P. WIMMER and instructors.

This course is devoted in the main to the study of the problems encountered by the pharmacist in his prescription work. Prescriptions of all kinds, especially such as present some difficulties, are studied with the aid of lantern slides. The numerous incompatibilities of present-day prescription work are discussed, as well as ways of avoiding or overcoming them. The subject of homeopathy receives the attention it deserves.

Textbooks: Scoville, *The Art of Compounding*; Ruddiman, *Incompatibilities*.

**Pharmacy 105—Manufacturing pharmacy laboratory** (for third year College students). Laboratory course, 16 weeks (two sections alternating). 6 hours. 3 points. Professors L. N. BROWN, J. S. DORFMAN, and instructors.

The work of this course is a continuation of the first year. Many inorganic and organic pharmaceutical preparations and salts are manufactured. In addition, galenicals, toilet preparations,

and hospital formulæ are compounded. Especial attention is given systematic training in the identification of many chemicals and galenicals official in the United States Pharmacopœia and National Formulary.

Textbooks: *U. S. Pharmacopœia; National Formulary; National Dispensatory; The Pharmaceutical Recipe Book*; Diekman and Wimmer, *Pharmacy Notes*.

**Pharmacy 106**—Same as *Pharmacy 105* but given during second half of the year.

**Pharmacy 107-108**—**Dispensing pharmacy laboratory** (for third year College students). Laboratory course, 4 hours. 4 points. Professors L. N. BROWN, J. S. DORFMAN, and instructors.

The work in the dispensing pharmacy laboratory deals particularly with the various phases of prescription dispensing, such as checking, labeling, pricing, and delivery, etc. The all-important subject of chemical, pharmaceutical, and therapeutical incompatibilities is thoroughly studied. The continual introduction of new remedies renders the subject of prescription incompatibilities a never-ending study, and it is the aim of this course to qualify its graduates to keep pace with discovery.

Textbooks: Ruddiman, *Incompatibles in Prescriptions*; Diekman and Wimmer, *Pharmacy Notes*.

**Pharmacy 109-110**—**Pharmaceutical jurisprudence and business pharmacy** (for University juniors and third year College students). Lectures 2 hours, recitation 1 hour. 6 points. Professor F. D. LASCOFF, Dr. I. NEUSTAEDTER, and visiting lecturers and instructors.

This course is designed to familiarize the student with the fundamentals underlying all law and also with the general provisions of Federal and state laws governing the practice of pharmacy. The various ordinances and regulations having local application will also be studied. Special attention is given to prohibition and anti-narcotic laws and regulations.

Lectures by practical business men will be a feature of the course. This series of lectures will give the student the principles of merchandising from a business man's viewpoint rather than from that of the pedagogue. These lectures, as well as those of the regular course, are aimed to give the student a better understanding of contemporary business problems.

**Pharmacy 111**—**Practical pharmacy—manufacturing pharmacy laboratory** (for University juniors). Laboratory 13 hours per week for 12 weeks beginning September 21, 1931. 5 points. Professor H. M. CARTER and instructors.

This course includes the manufacture of a number of the more difficult Pharmacopœial and National Formulary preparations, as well as of inorganic and organic medicinal remedies. The work is intended to qualify students for positions in pharmaceutical manufacturing establishments.

Textbook: Wimmer, *Manufacturing Pharmacy Notes*.

**Pharmacy 113**—**Practical dispensing pharmacy** (for University juniors). Laboratory 3 hours per week for 12 weeks beginning September 21, 1931. 2 points. Professor H. M. CARTER and instructors.

This course embraces a thorough study of the various types of incompatibilities. A large number of prescriptions are compounded which illustrate how some incompatibilities may be avoided or overcome.

Textbooks: Diekman and Wimmer, *Incompatibilities*; Ruddiman, *Incompatibilities in Prescriptions*.

**Pharmacy 115-116**—**Theoretical pharmacy** (for University juniors). Lectures 2 hours, recitation 1 hour. 6 points. Professor C. P. WIMMER.

This is the same lecture course as *Pharmacy 101-102*, but no formal recitations are provided.

**Pharmacy 151-152—Advanced pharmacy** (for University seniors). Lecture 1 hour. 2 points. Professor C. P. WIMMER.

This course is devoted to a detailed study of pharmaceutical, chemical, and biological assay methods of vegetable and animal drugs, as well as of methods for their identification. It includes the newer methods employed, such as the standardization of tannin-containing drugs by the agglutination test, of saponin-containing drugs by the determination of their haemolytic indices, etc.

A portion of the lecture course is devoted to a study of essential oils, while especial emphasis is laid upon official oils. Those of importance in the essential oil industry are included.

In a series of seminars, students are required to prepare and present before the professors and instructors in the department, papers on current topics of interest pertaining to pharmaceutical and allied sciences.

Textbooks: Fuller, *Analysis of Drugs and Medicines; U. S. Pharmacopœia; National Formulary V*; Gildemeister and Hofman, *The Volatile Oils*.

**Pharmacy 153-154—Pharmaceutical assaying** (for University seniors). 8 weeks beginning January 25, 1932. Laboratory, 7 hours. 7 points. Professors C. P. WIMMER, H. M. CARTER, and instructors.

This course is intended to prepare the student for work as a drug analyst. The entire class carries out a proximate analysis of a vegetable drug. Individual problems in assay work of the most varied and difficult kind are assigned and the student is, to a considerable extent, left to his own resources. The work embraces assays of galenicals, flavoring extracts, toilet preparations, cosmetics, medicinal gauzes, etc.

Textbooks: Fuller, *Analysis of Drugs and Medicines*; Nelson, *Introduction to the Analysis of Drugs and Medicines; Current Literature*.

## CULTURAL COURSES

**English 1-2—English** (for University freshmen). Lectures and recitations, 3 hours. 6 points. Mr. G. D. MCJIMSEY.

This is the Columbia College course *A1-A2*, in English composition and literature, required of all freshmen at that college.

**History 1-2—American government** (for University freshmen). Lectures and recitations, 3 hours. 6 points. Mr. G. D. MCJIMSEY.

This is the Columbia College course *Government 1-2*, American government. It constitutes a general survey of the most persistent problems of American government—national, state, and local—considering problems of political organization in the first semester, and problems of administrative organization and personnel, and those related to the functions of finance, justice, the relation of government to economic life, and foreign relations in the second semester.

**German 51-52—German** (for University sophomores). Lectures and recitations, 5 hours. 10 points. Mr. A. H. INGENHUETT.

This is an introductory course in German.

**Mathematics 101—Solid geometry** (for University juniors). 3 hours. 3 points Winter Session. Mr. G. D. MCJIMSEY.

This course embraces the same work as is required in the Columbia College course *Mathematics A57*.

**Mathematics 102—Trigonometry** (for University juniors). 3 hours. 3 points Spring Session. Mr. G. D. MCJIMSEY.

This course embraces the same work as is required in the Columbia College course *Mathematics A1*.

**Bibliography 151-152—Pharmaceutical bibliography** (for University seniors). Lectures and conferences 1 hour, 2 points. Professor C. W. BALLARD.

This course will consist of lectures on the source books of chemistry, pharmacy, botany, and cognate sciences and on the periodical literature on the same subjects. At the conferences, special themes will be assigned to each student for research during spare hours.

## THE GRADUATE COURSE

A graduate course of two full years' study in residence is open to graduates with the baccalaureate degree, conferred by this college or other schools of pharmacy maintaining equivalent courses of study. For the present, we are able to accommodate only two students majoring in each of the Departments of Chemistry, Materia Medica, and Pharmacy. Thirty hours' study weekly is required in the department in which the student is majoring, and three hours weekly in each of the other two departments. In the latter departments, certain work is obligatory, although an option is allowed the student, between two or more schedules, as follows:

### CHEMISTRY

#### *Fifth Year*

*Option A*—Lecture courses consisting of **Chemistry 201-202—Structural organic chemistry**. 2 hours. 4 points. Professor H. V. ARNY.

**Chemistry 203-204—Synthesis of newer organic medicinal chemicals**. 1 hour. 2 points. Professor H. H. SCHAEFER.

*Option B*—Laboratory work. **Chemistry 205—Experimental organic chemistry**. 2 periods weekly at 6 hours each during 8 weeks. 3 points. Professors H. V. ARNY and A. TAUB.

This course includes combustions and other organic analyses, molecular weight determinations and other such work as time permits.

#### *Sixth Year*

*Option A*—The same lecture courses offered to students of the fifth year, provided such courses have not already been offered as fifth year subjects.

*Option B*—**Chemistry 207—Advanced organic analysis**. 2 periods of 6 hours weekly during 8 weeks. 3 points. Professor H. C. KASSNER.

This course includes modern methods of organic radicles; the quantitative determination of elements and radicles not performed in previous years; and lastly, time permitting, special analytical methods such as electrometric titrations and the polarimetry of complex mixtures.

### MATERIA MEDICA

#### *Fifth Year*

*Option A*—**Materia Medica 201—Analysis and determination of cryptogamous and phanerogamous plants**. Laboratory course, two periods weekly of 6 hours each during 8 weeks. 3 points. Professors H. H. RUSBY and F. HART.

*Option B—Materia Medica 203—Advanced bacteriology.* Laboratory and conferences, 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor F. HART.

The determination of types through special cultural and staining methods.

*Option C—Materia Medica 205—Food microscopy.* Laboratory and conferences, 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor C. W. BALLARD.

A systematic study of the various classes of foodstuffs in which adulteration can be determined by microscopical methods.

#### *Sixth Year*

*Option A—(To be offered only if Option A of the fifth year has been carried. If not, that work will constitute Option A of the sixth year.) Materia Medica 207—The literature and methods of research in vegetable taxonomy.* Conference and laboratory, two periods weekly of 6 hours each during 8 weeks. 3½ points. Professors H. H. RUSBY and F. HART.

*Option B—Materia Medica 209—Bacteriology.* Conference and laboratory, 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor F. HART.

The preparation of antitoxic products in media and their cultivation through animal experimentation.

*Option C—Materia Medica 211—Chemical microscopy.* Conference and laboratory, 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professors C. W. BALLARD and H. TAUB.

A study of the microchemical procedures involved in the use of the microscope as an aid in chemical analysis.

#### PHARMACY

#### *Fifth Year*

*Option A—Pharmacy 201—Assay and analysis of official and non-official galenicals and other medicinally compounded preparations.* Lectures and laboratory work. 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor C. P. WIMMER.

*Option B—Pharmacy 203—Manufacture, composition, and analysis of toilet preparations and cosmetics.* Lectures and laboratory work. 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor C. P. WIMMER.

#### *Sixth Year*

*Option A—Pharmacy 205—Examination and analysis of incompatible mixtures with special reference to prescriptions.* Laboratory work only. 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor C. P. WIMMER.

*Option B—Pharmacy 207—Examination and analysis of essential oils, flavoring extracts, and perfume materials.* Lecture and laboratory work. 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor C. P. WIMMER.

#### SUBMISSION OF THESIS

At least fifteen days before the first day on which University examinations are scheduled to be held, the candidate shall submit three finished copies of his or her thesis, in typewritten form, to the professor in whose department the candidate is majoring.

The awarding of the degree shall be dependent upon the approval of the thesis, and the results of an oral Faculty examination of the candidate.

#### SUMMER LABORATORY COURSES

These courses are designed to assist students who have failed at the spring examinations to prepare for those of the fall, and to provide instruction for special students in the use of the microscope, in the examination of drugs, and in pharmaceutical processes.

It will thus be seen that the work is not definitely fixed, but is made sufficiently elastic to allow it to be adapted to the special needs of individuals.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

#### SUMMER LABORATORY COURSES 1931

##### *First, Second, and Third Year College Classes*

June 8 to June 27—Department of Chemistry.

June 29 to July 18—Department of Materia Medica.

July 20 to August 8—Department of Pharmacy.

#### SUMMER LABORATORY COURSES 1932

##### *First, Second, and Third Year College Classes*

June 6 to June 25—Department of Chemistry.

June 27 to July 16—Department of Materia Medica.

July 18 to August 6—Department of Pharmacy.

#### UNIVERSITY CLASSES

University students failing in laboratory courses will be advised by the Registrar regarding the summer laboratory schedules.

#### EVENING COURSES

These courses of instruction, although they cannot be substituted for any of our regular work leading to degrees, have proven of great benefit to those who cannot attend during the day, and to those who desire to pursue special courses

of study. General educational credits are not allowed for them. They are designed for special students as well as for members of our regular classes.

Candidates may be admitted at any time during the course, at the discretion of the director of the course, but only those who have attended at least 80 per cent of all exercises and who pursue in a satisfactory manner the courses for which they are registered will receive certificates.

The courses are offered on Monday, Tuesday, and Friday of each week during the periods from Monday, October 5, 1931, to January 15, 1932, and from January 18, 1932, to Friday, May 7, 1932.

The Registrar's office will be open daily for registration from 10 a. m. to 4 p. m. and on Monday, Tuesday, and Friday evenings from 7 to 8 o'clock, during the first two weeks of each semester.

Fees are payable in advance and are not returnable. A registration fee of \$6 is required of each student in addition to the fees stated below.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

The following courses are offered:

#### DEPARTMENT OF CHEMISTRY

**Evening Chemistry 1-2—Pharmaceutical qualitative analysis.** 1 hour classroom and 2 hours laboratory each week. Fee \$25 each semester; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7:30-10:30 p. m.

Lecture: F., 7:30-8:20 p. m.

Laboratory: F., 8:30-10:30 p. m.

This course, which presupposes a knowledge of general pharmaceutical chemistry is designed to train students in the qualitative tests for metal-ions included in the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

**Evening Chemistry 3-4—Pharmaceutical qualitative analysis.** 1 hour classroom and 2 hours laboratory work each week. Fee \$25 each semester; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7-10 p. m.

Laboratory: F., 7-9 p. m.

Lecture: F., 9:10-10 p. m.

This course is a continuation of *Evening Chemistry 1-2* with particular reference to the U. S. P. tests for acid-ions. (Conditional on the enrollment of ten students.)

**Evening Chemistry 5-6—Pharmaceutical volumetric analysis.** 1 hour classroom and 2 hours laboratory work. Fee \$25 each semester; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7-10:30 p. m.

This course is designed to give training in the volumetric assays of the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

**Evening Chemistry 7—Examination of urine.** First semester, 1 hour lecture and 2 hours laboratory work. Fee \$25; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7:15-10:30 p. m.

Lecture: F., 7:20-8:20 p. m.

Laboratory: F., 8:30-10:30 p. m.

It should be noted that to qualify for "Director" of a laboratory, as defined by the Board of Health of the City of New York, a degree at least the equivalent of a B.S., is required.

In this course the qualitative and quantitative chemical tests of normal and pathological urine are studied; also the preparation and standardization of the necessary reagents. (Conditional upon the enrollment of twenty students.)

**Evening Chemistry 8—Examination of urine.** Second semester 1½ hours lecture and 2 hours laboratory work. Fee \$25; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7:30-10 p. m.

Lecture: F., 7:30-8 p. m.

Laboratory: F., 8:20-10 p. m.

In this course, a continuation of *Evening Chemistry 7*, the gravimetric, polariscopic, colorimetric, and microscopic examination of urine is studied. (Conditional upon the enrollment of twenty students.)

**Evening Chemistry 9-10—Newer remedies.** 1 hour lecture each week throughout the year. Fee \$30. Professor H. H. SCHAEFER.

F., 8:30-9:30 p. m.

The aim of this course is to give the graduate pharmacist an opportunity to become familiar with the chemistry of many "recent" remedies generally classified as "synthetics" which are prescribed by physicians but which are not official. Most of these preparations are rather recent additions to our materia medica and many of them are covered by patents. The products are not selected because of their medicinal merit but rather because of the frequency with which they are prescribed. Not only will the chemistry of these preparations be considered, but whenever possible, original packages will be shown to the students and the names of their manufacturers given.

Conditional on enrollment of twenty students.

#### DEPARTMENT OF MATERIA MEDICA

**Evening Materia Medica 1-2—Principles and practice of bacteriology.** 1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester; \$10 breakage deposit. Professor F. HART and assistants.

Tu., 7-10 p. m. Lectures: 7-8 p. m. Room 42, Pharmacy.

Laboratory: 8-10 p. m.

This course includes the bacterial examination of sputum, excreta, water, air, milk, and ice. Special attention is given to the standard methods of disinfection and sterilization. The major portion of the time is devoted to the cultivation, morphology, and staining properties leading to the identification of the more common pathogenic bacteria.

Conditional on the enrollment of ten students.

**Evening Materia Medica 3-4—Blood analysis.** 1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester; \$10 breakage deposit. Professor H. TAUB and assistants.

M., 7-10 p. m. Lecture: 7-8 p. m.

Laboratory: 8-10 p. m.



First semester: Preparation and study of blood smears in health and disease; total and differential counts; special pathology.

Second semester: Blood chemistry, including non-protein and urea nitrogen determinations, sugar, creatinin, uric acid,  $\text{CO}_2$ -combining power, chlorides, calcium, cholesterol, and other constituents; hemoglobin estimation, coagulation time; establishing and operating a laboratory.

Conditional on the enrollment of ten students.

**Evening Materia Medica 6—Parasitology.** 1 hour lecture and 2 hours laboratory work each week, second semester. Fee \$40; \$10 breakage deposit. Professor F. HART and assistants.

Tu., 7-10 p. m.

In this course chief attention is given to changes from normal to abnormal blood due to parasites as well as the more pathogenic blood and intestinal parasites.

Time is also allotted to the mycology of foods.

Conditional on the enrollment of 10 students.

**Evening Materia Medica 7-8—Microbiology.** 1 hour of lecture and demonstration each week throughout the year. Fee \$30. Professor F. HART.

M., 7:30-8:30 p. m.

This course includes the methods of manufacture, standardization, administration and dosage of the commercial biological and bacteriological products and derivatives. Consideration is likewise given to the various methods of sterilization and disinfection as well as the principles of serology and immunology.

Conditional on enrollment of twenty students.

**Evening Materia Medica 9-10—Pharmaceutical sundries.** 1 hour lecture each week throughout the year. Fee \$30. Professor C. W. BALLARD.

M., 8:30-9:30 p. m.

While the retail pharmacist handles many items which are included under the general heading of sick-room supplies, he generally has little opportunity for systematic study of these articles and this is particularly true under present-day conditions. The object of this course of lectures is to acquaint him with the manufacture, differences and applications of bandaging and dressing materials, rubber sundries, glass and metal appliances, sutures and ligatures and the miscellaneous articles stocked in the average retail pharmacy and intended for physicians' or household use. The complicated and specialized types of surgical instruments and appliances will not be considered.

Conditional on enrollment of twenty students.

#### DEPARTMENT OF PHARMACY

**Evening Pharmacy 1-2—Manufacturing pharmacy.** 1½ hours lectures and 1½ hours laboratory work each week. Fee \$35 each semester. Professor L. N. BROWN and assistants.

Tu., 7:30-10:30 p. m.

This course is of value to those desiring to prepare and place upon the market lines of specialties. The course is elastic and designed to meet individual requirements. One may take up the study of an entire series of preparations, or any one preparation in considerable detail.

Conditional upon the enrollment of ten students.

**Evening Pharmacy 3-4—Manufacture of cosmetics and toilet preparations.** 1 hour lecture and 2 hours laboratory work each week. Fee \$35 each semester. Professor C. P. WIMMER and assistants.

Tu., 7:30-10:30 p. m. Main Lecture Hall.

This course affords a thorough review of the entire subject of cosmetics and toilet preparations, their composition and manufacture. Face lotions, hair dyes and other hair preparations, face powders and paints, cream (greasy, non-greasy and vanishing), toothwashes and powders, etc., are studied and certain types are manufactured.

Conditional upon the enrollment of ten students.

A summary of the lecture topics will be furnished upon request.

**Evening Pharmacy 5-6—Perfume materials and perfumery.** 1 hour lecture and 2 hours laboratory work each week. Fee \$50 each semester. Professor C. P. WIMMER and assistants.

M., 7 p. m. Main Lecture Hall.

This course is of value to persons employed in essential oil houses and perfume manufacturing establishments and others desiring to enter this field. The lectures are illustrated with lantern slides and samples of the materials under discussion are exhibited. The laboratory work comprises the determination of physical constants, testing for impurities, etc. A systematic course in nose-training is included.

A summary of the course will be mailed upon request.

Conditional on the enrollment of ten students.

**Evening Pharmacy 7-8—Ampuls and medicated units.** 1 hour lecture each week. Fee \$30 entire course. Professor H. M. CARTER.

F., 7:30-8:30 p. m.

This course provides for the graduate pharmacist a thorough training in the principles of ampul medication both from the theoretical and practical viewpoints. Briefly, it considers the history, the advantages of parenteral administration, the forms and sizes of ampuls of American and foreign makes, together with the actual demonstration of ampul manufacture including glass blowing, filling, sealing, sterilization, etc. The National Formulary ampuls and products of various manufacturers are exhibited and discussed in detail paying strict attention to methods of packaging, storing, and dispensing.

Conditional upon the enrollment of twenty students.

THE ALUMNI ASSOCIATION OF THE COLLEGE OF  
PHARMACY OF THE CITY OF NEW YORK

OFFICERS AND COMMITTEES, 1931-1932

*President*

HARRY TAUB

*Honorary President*

ADOLPH HENNING

*Vice-Presidents*

HUGO H. SCHAEFER

GUSTAVE BARDFELD

LESLIE JAYNE

*Secretary*

ABRAHAM TAUB

*Treasurer*

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*Registrar*

CURT P. WIMMER

*Executive Board*

V. K. COMMONS, 1932.

ARTHUR J. BAUER, 1933.

MAY O'C. DAVIS, 1932.

VITO CALCAGNO, 1933.

F. J. POKORNY, 1932.

F. D. LASCOFF, 1934.

RUDOLF HAUCK, 1933.

J. H. HECKER, 1934.

L. N. BROWN, 1934.

*Committee on Papers and Queries*

C. P. WIMMER

ADOLPH HENNING

JOHN H. HECKER

*Delegates to the American Pharmaceutical Association*

GEORGE C. DIEKMAN

C. P. WIMMER

ADOLPH HENNING

*Delegates to the New York State Pharmaceutical Association*

CHARLES W. BALLARD

HUGO H. SCHAEFER

VITO CALCAGNO

*Delegates to the New Jersey Pharmaceutical Association*

HAROLD McADAMS

CHARLES W. HOLTON

HARRY E. BISCHOFF

*Delegates to the Connecticut Pharmaceutical Association*

CURT P. WIMMER

HAROLD LEVY

FRANK V. DAMTOFT

## ENDOWMENTS

For one hundred consecutive years the College of Pharmacy of the City of New York has maintained its annual courses of instruction for the education and training of pharmacists. That this instruction has exhibited a steady extension and improvement is clearly recorded in the successive editions of its annual prospectus. That such a result could not have been attained by the use of students' fees, unaided by other resources, will be readily understood by all who have had experience in educational administration. Such assistance may be said to have begun with the generous contribution of free instruction services by Professors Edward R. Squibb, Charles F. Chandler, and others, in the early history of the institution, and to have continued with the services of their successors, and the unpaid management of officers and Trustees. At various times financial crises have been met by generous donations of money by officers and members, and occasionally by outside friends. In some cases, as when new quarters were to be secured, a new building was to be erected, or herbarium or apparatus to be bought, the sums thus contributed have been large, considering the resources of those contributing.

As indicated in the preceding pages of this Announcement, in addition to the College Course of three years, leading to the degree of Ph.G., there is now provided a University Course of three years, leading to the degree of Ph.Ch., with an additional year of optional work, leading to the degree of B.S. in Pharmacy.

It is not to be expected that the scanty revenue derived from the fees of the small number of students who will pursue these advanced studies will begin to provide the necessary means for meeting the additional expenditures. The College must undertake these burdens as its contribution to pharmaceutical education.

Under such conditions, it is felt that an appeal should be made to those who are interested in promoting educational development in America to give their favorable consideration and to lend their financial aid to the present efforts of the College.

Since the actual instruction work of the College calls for the expenditures of our entire income received from students' fees, it follows that we are compelled, like other schools, to seek other sources of income for meeting unusual expenses.

There are also a number of ways in which comparatively small contributions will be immediately productive of great good in specific directions, and several of these are discussed below.

## LIBRARY MAINTENANCE

The library facilities required by men engaged in advanced studies are necessarily much more extensive than those now provided by the College. The research work in which such men will engage will call for a full supply of works of reference, not only in pharmaceutical subjects, but in the sciences contributory to pharmacy. Generous friends of the College, and one such in particular, have made frequent and extensive contributions to the library, but it is highly desirable that an endowment be established that will yield a permanent annual fund of \$500 for such a purpose.

## APPARATUS

The College, thanks to the generosity of the late Mr. Edward Kemp, possesses a splendid working equipment of physical apparatus, suitable for the ordinary purposes of pharmaceutical education. The advanced work of graduate students will require not only extensive additions, but continuous expenditures for new designs in order to keep pace with discovery and improvement.

An endowment of from \$5,000 to \$10,000 would admirably meet this demand.

## MUSEUM

With the exception of the National Museum at Washington, there is no extensive pharmaceutical or materia medica museum in this country. Small museums exist in Philadelphia, Detroit, Cincinnati, at the New York Botanical Garden and elsewhere, but nowhere is there a museum properly comparable with those in London and Berlin. Civic pride, if no other consideration, should suffice to secure the establishment in New York City of a museum proportionate with the importance of the city as the port of entry for more than three fourths of the drugs received into the United States. There are, however, other considerations of far greater importance. Scarcely a week passes without more than one inquiry from importers, brokers or merchants, and even from the city and Federal departments, for unobtainable information concerning commercial articles of this class.

There should be some institution to which such inquiries could turn with reasonable certainty of an accurate reply. Furthermore, the ambition to supply Doctors of Pharmacy who are competent to meet all demands made upon them, even for the discovery of desired unknown facts, renders it imperative that a storehouse of materials for investigation should be available. The ideal location for such a museum is with the department of pharmacy of a strong and active university.

Such a museum involves more than a mere collection of labeled articles in cases. It calls for a comprehensive plan providing for future accessions, and for investigating the utility of new products. This calls for a curator with an encyclopedic knowledge of the subject, and qualified to pursue original researches. Such an institution, thus equipped, could provide a continuous supply of original contributions in economic botany, connected upon the one side with sources of sound scientific information and authentication, and upon the other with the material welfare of our people.

A more creditable and permanent monument to its donor could scarcely be conceived. To establish such a museum, and also to provide properly for its care and maintenance, would require from \$100,000 to \$150,000.

## ADDITIONAL PROFESSORSHIPS

The establishment of a number of lecture courses to be served by specialists in their respective subjects is an essential requisite in the work of the final years of an advanced course. Perhaps the most important of such subjects is the history of chemistry and pharmacy. The provision of even a short series of lectures would do much to point the way to investigation in the light of former achievement.

Those desiring to contribute toward any of the purposes named, or others in which they may be interested, will upon request be supplied with a form which may be used for the purpose.

## REGISTER OF GRADUATES

### DOCTOR OF PHARMACY, JUNE 3, 1930

Kennedy, Margaret H. Cambridge, N. Y.  
(1)

### BACHELORS OF SCIENCE IN PHARMACY, JUNE 3, 1930

Aaronson, Irving  
100 Humboldt Street, Brooklyn, N. Y.  
Brown, Gustave Harold  
884 Riverside Drive, New York, N. Y.  
Bulda, Frank  
262 Fifth Avenue, Astoria, N. Y.  
Caniparoli, Olga  
2529 Cambreling Avenue, New York, N. Y.  
Del Vecchio, Henry William  
1366 73d Street, Brooklyn, N. Y.  
Dick, Lester Colby  
98 Division Street, Keyport, N. J.  
Edelstein, Victor Hugo  
62 East 94th Street, New York, N. Y.  
Falk, Herbert Bernard  
709 East 24th Street, Paterson, N. J.  
Fisher, Jennie  
314 Bay 10th Street, Brooklyn, N. Y.  
Givens, Horace T. F.  
6 Cottage Place, Freehold, N. J.  
Glantz, Milton  
355 Second Avenue, New York, N. Y.  
Jae, Hok Yin  
522 West 147th Street, New York, N. Y.  
Kaplan, Herbert Benjamin  
44 Weirfield Street, Brooklyn, N. Y.  
Rockowitz, Louis  
1636 76th Street, Brooklyn, N. Y.  
Rubenstein, Louis J.  
85 Powell Street, Brooklyn, N. Y.  
Topilow, Jacob  
155 West 29th Street, Brooklyn, N. Y.  
Tususian, Nishan  
327 West 21st Street, New York, N. Y.  
Yukelson, Arthur William  
1209 Westchester Avenue, New York, N. Y.  
(18)

### PHARMACEUTICAL CHEMISTS, JUNE 3, 1930

Benjamin, Irving  
35 Brookside Place, New Rochelle, N. Y.  
Berest, Joseph  
2435 Creston Avenue, New York, N. Y.  
Betzler, Clifford William  
194-54 114th Road, St. Albans, N. Y.  
Canepa, John Joseph  
111 Anderson Avenue, Scarsdale, N. Y.

Carlat, Bernard  
1914 East 18th Street, Brooklyn, N. Y.  
D'Avella, Bernardino Johnson  
167 Parker Street, Newark, N. J.  
de Domenico, Ida  
287 Bleecker Street, New York, N. Y.  
Eisenberg, Julius  
327 Steinway Avenue, Astoria, N. Y.  
Fisher, Sidney Alexander  
701 Crotona Park North, New York, N. Y.  
Henkin, Samuel  
1125 Elder Avenue, New York, N. Y.  
Jacobs, Julius  
1281 Eastern Parkway, Brooklyn, N. Y.  
Keilin, Harry  
2800 Bronx Park East, New York, N. Y.  
Kucker, George  
1114 Magnolia Avenue, Elizabeth, N. J.  
Lichtenberg, Raymond  
615 Hudson Street, Hoboken, N. J.  
Massarsky, Solomon  
16 Second Street, Weehawken, N. J.  
Moskowitz, Herman  
40 Birch Street, Mt. Vernon, N. Y.  
Müller, Alfred Carl  
18-11 147th Street, Whitestone, N. Y.  
Nochimow, Eliezer  
489 Willoughby Avenue, Brooklyn, N. Y.  
Novins, Henry  
523 West 138th Street, New York, N. Y.  
Pagano, Alphonse Frederick  
213 Van Brunt Street, Brooklyn, N. Y.  
Peskin, Benjamin  
936 Intervale Avenue, New York, N. Y.  
Sadinsky, Hyman Benjamin  
60 Maple Street, Norwich, Conn.  
Seldeen, Israel Barnett  
204 Broadway, Amityville, N. Y.  
Seligman, Morris William  
317 East 27th Street, New York, N. Y.  
Simcovitz, Robert  
848 Belmont Avenue, Springfield, Mass.  
Stephanou, Eli  
33 Thames Street, Norwich, Conn.  
Stevens, Eli  
1160 59th Street, Brooklyn, N. Y.  
(27)

### GRADUATES IN PHARMACY, MAY 29, 1930

Abrams, Michael Irving  
428 26th Street, Gutenberg, N. J.  
Ackerman, Ruth  
3271 Westchester Avenue, New York, N. Y.

- Allegra, Frank  
25-76 44th Street, Astoria, N. Y.
- Alperstein, Hyman Meyer  
216 East 10th Street, New York, N. Y.
- Anderson, Arthur Gustave  
4 Travers Avenue, Mamaroneck, N. Y.
- Bacchiani, Torquato  
211 East 57th Street, New York, N. Y.
- Bambara, Aurelius John  
1271 42d Street, Brooklyn, N. Y.
- Bardfeld, Gustave  
9720 Jamaica Avenue, Woodhaven, N. Y.
- Bartha, John Anthony  
165 Hamilton Street, New Brunswick, N. J.
- Bauer, Max  
400 Eighth Street, West New York, N. J.
- Bauer, Paul Edgar  
249 Post Avenue, Westbury, N. Y.
- Berkowitz, Bernard  
35 Tompkins Avenue, Brooklyn, N. Y.
- Beyer, Isadore  
Spring Glen, N. Y.
- Bittar, Albert  
5101 Sixth Avenue, Brooklyn, N. Y.
- Blatt, Jacob  
3540 Rochambeau Avenue, New York, N. Y.
- Blumberg, Lester  
180 Danforth Avenue, Jersey City, N. J.
- Boxer, Meyer  
131 Rockaway Parkway, Brooklyn, N. Y.
- Bronzo, Ralph  
2070 West 9th Street, Brooklyn, N. Y.
- Bussle, Harry  
485 East 173d Street, New York, N. Y.
- Calabrese, Savino Daniel  
826 Second Avenue, New York, N. Y.
- Cassara, Anthony V.  
1121 40th Street, Brooklyn, N. Y.
- Charnes, Randolph  
495 East 174th Street, New York, N. Y.
- Chernoff, Max  
607 Hopkinson Avenue, Brooklyn, N. Y.
- Cimino, John Anthony  
1049 67th Street, Brooklyn, N. Y.
- Cipnic, Herman  
1068 Newport Street, Brooklyn, N. Y.
- Cohen, Bernard Martin  
2001 Douglas Street, Brooklyn, N. Y.
- Cohen, Harry  
561 West 163d Street, New York, N. Y.
- Cohen, Henry  
325 Wallabout Street, Brooklyn, N. Y.
- Cohen, Isaac  
591 East 141st Street, New York, N. Y.
- Cohen, Sidney  
670 Garden Street, New York, N. Y.
- Cohen, William  
726 Rockaway Avenue, Brooklyn, N. Y.
- Cohler, Meyer  
537 West 141st Street, New York, N. Y.
- Coppola, Angelo  
33-48 84th Street, Jackson Heights, N. Y.
- Costabile, Hugo  
872 East 163d Street, New York, N. Y.
- Criscuolo, Andrew  
792 Grand Avenue, New Haven, Conn.
- Davis, Benjamin Richard  
3723 Eighteenth Avenue, Brooklyn, N. Y.
- Decter, Jacob  
11 McDonough Street, Brooklyn, N. Y.
- Denker, Benjamin  
1725 Fulton Avenue, New York, N. Y.
- Diamondstein, Joseph  
1506 Walton Avenue, New York, N. Y.
- Dicker, Morris  
228 6th Street, New York, N. Y.
- Dier, Philip  
2840 East 6th Street, Brighton Beach, N. Y.
- Dinin, Jack  
1369 Intervale Avenue, New York, N. Y.
- Dogan, Max  
1594 East 10th Street, Brooklyn, N. Y.
- Dwoskin, Barney William  
3001 West 24th Street, New York, N. Y.
- Ellenson, Barnet  
867 Crotona Park North, New York, N. Y.
- Epstein, Samuel Irving  
2067 Haviland Avenue, New York, N. Y.
- Failla, Silvio Joseph  
740 Main Street, North Bergen, N. J.
- Falk, Benjamin  
312 Madison Street, New York, N. Y.
- Fazio, Ignatius  
1618 77th Street, Brooklyn, N. Y.
- Feldman, Morris  
120 Bristol Street, Brooklyn, N. Y.
- Fermaglich, Louis Joseph  
67 Sheriff Street, New York, N. Y.
- Fialkow, Benjamin  
547 Howard Avenue, Brooklyn, N. Y.
- Firemark, Samuel  
107-57 Union Hall Street, Jamaica, N. Y.
- Flaherty, Sister Mary Oswald  
Marywood College, Scranton, Pa.
- Flaumenbaum, Irving  
345 West 86th Street, New York, N. Y.
- Fleissig, Arthur  
378 East 10th Street, New York, N. Y.
- Flexer, Isidore  
581 George Street, New Haven, Conn.
- Florence, Paul Adrien  
213 Pomander Road, Mineola, N. Y.
- Form, Milton  
1828 Myrtle Avenue, Brooklyn, N. Y.
- Fragar, Joseph Saul  
27 Washington Place, Newburgh, N. Y.

- Frankel, Isidore Isaac  
 156 Second Avenue, New York, N. Y.
- Frankfort, Morris  
 1980 East 26th Street, Brooklyn, N. Y.
- Fried, Emanuel  
 1584 East 172d Street, New York, N. Y.
- Friedberg, Irving  
 522 Christopher Avenue, Brooklyn, N. Y.
- Gellar, Henry  
 1003 Clarkson Avenue, Brooklyn, N. Y.
- Getzlek, George  
 Richfield Springs, N. Y.
- Glick, Percy  
 2716 Hubbard Street, Brooklyn, N. Y.
- Gluck, Morton  
 1560 Amsterdam Avenue, New York, N. Y.
- Gralewski, Walter Joseph  
 757 41st Street, Brooklyn, N. Y.
- Greenstein, Edward  
 361 Van Sicklen Avenue, Brooklyn, N. Y.
- Gressey, Henry  
 31-14 36th Street, Astoria, N. Y.
- Gualiaro, Vincent Francis  
 28 Harrison Avenue, Monson, Mass.
- Haimowitz, Benjamin  
 23 Tapscott Street, Brooklyn, N. Y.
- Hamburg, David  
 1011 Freeman Street, New York, N. Y.
- Hirschmann, Jonas  
 145 Belmont Avenue, Jersey City, N. J.
- Holzman, Jack  
 1200 First Avenue, New York, N. Y.
- Huber, Henry  
 5 3d Street, Weehawken, N. J.
- Huger, Charles  
 1421 Crotona Avenue, New York, N. Y.
- Hurwitz, Myer  
 1402 South McBride Street, Syracuse, N. Y.
- Jackson, Joseph  
 948 Tiffany Street, New York, N. Y.
- Jurow, Louis  
 Monticello, N. Y.
- Kanfer, Daniel  
 140 Wilson Street, Brooklyn, N. Y.
- Kaufman, George Sam  
 569 Saratoga Avenue, Brooklyn, N. Y.
- Klein, Joseph  
 1532 West 10th Street, Brooklyn, N. Y.
- Klorman, Joseph  
 152 East 96th Street, Brooklyn, N. Y.
- Kobelivker, Joseph  
 734 Saratoga Avenue, Brooklyn, N. Y.
- Koretzky, Leon  
 769 Willoughby Avenue, Brooklyn, N. Y.
- Koslowsky, David  
 1967 71st Street, Brooklyn, N. Y.
- Kosowsky, Milton Stanley  
 52 Summer Street, New London, Conn.
- Kossow, Solomon  
 81 East 108th Street, New York, N. Y.
- Kressel, Marcus  
 50 East 3d Street, New York, N. Y.
- Kyzr, Anton Louis  
 30-70 45th Street, Astoria, N. Y.
- Lacovara, George  
 754 East 215th Street, New York, N. Y.
- Lauria, Anthony  
 460 Fairmount Avenue, Jersey City, N. J.
- Lawentman, Julius  
 428 Jackson Avenue, New York, N. Y.
- Lerman, Nathan  
 Colchester, Conn.
- Lerner, Isadore  
 50 East 3d Street, New York, N. Y.
- Levine, Theodore  
 371 Crown Street, Brooklyn, N. Y.
- Liberman, Joseph Rudolph  
 1061 Intervale Avenue, New York, N. Y.
- Liebowitz, Harry C.  
 1152 College Avenue, New York, N. Y.
- Lindheim, Michael  
 29 Rockaway Parkway, Brooklyn, N. Y.
- Lissman, Harold  
 1815 Prospect Avenue, New York, N. Y.
- Loscalzo, Joseph V.  
 125 46th Street, Corona, N. Y.
- McDavid, Sydney Sigeman Alonzo  
 859 Home Street, New York, N. Y.
- Maggio, John  
 107 Ridgewood Avenue, Brooklyn, N. Y.
- Maisel, Milton  
 1018 East 163d Street, New York, N. Y.
- Mandel, Charles  
 341 Wythe Avenue, Brooklyn, N. Y.
- Mandelblit, Morris M.  
 893 Lafayette Avenue, Brooklyn, N. Y.
- Manfre, Stephen  
 204 Baltic Street, Brooklyn, N. Y.
- Mariani, Faustina  
 3350 White Plains Avenue, New York, N. Y.
- Marion, Bernard  
 604 West 191st Street, New York, N. Y.
- Marra, Joseph Richard  
 11 Ohio Avenue, Port Washington, N. Y.
- Marshall, Lillian  
 851 Tinton Avenue, New York, N. Y.
- Matragrano, Anthony John  
 Bedford Hills, N. Y.
- Matthias, Eulalie Ravina  
 226 West 123d Street, New York, N. Y.
- Mazie, Jack  
 1061 Hall Place, New York, N. Y.
- Mazur, Samuel  
 359 Madison Street, New York, N. Y.
- Meiselman, Harold Engel  
 9 Northern Avenue, New York, N. Y.
- Miller, Bernard  
 1372 Grant Avenue, New York, N. Y.



- Millner, Samuel  
 73 Grafton Street, Brooklyn, N. Y.
- Mininberg, Harry  
 909 Kelly Street, New York, N. Y.
- Montesano, Benjamin  
 9 Green Street, Paterson, N. J.
- Murdock, Peter C.  
 25 Amsterdam Place, Mt. Vernon, N. Y.
- Mussawir, Alfred George  
 436 45th Street, Brooklyn, N. Y.
- Naftal, Benjamin Harold  
 329 East 94th Street, New York, N. Y.
- Napoliello, Joseph Francis  
 21 Grace Street, Jersey City, N. J.
- Nemiroff, Max Milton  
 1222 45th Street, Brooklyn, N. Y.
- Nestampower, Morris  
 485 East 95th Street, Brooklyn, N. Y.
- Nieporent, Morris  
 63 East 118th Street, New York, N. Y.
- Orkand, Sidney  
 2471 Morris Avenue, New York, N. Y.
- Paley, Jacob  
 102-44 Jamaica Avenue, Richmond Hill,  
 N. Y.
- Papalinsky, Morris  
 1001 Lincoln Place, Brooklyn, N. Y.
- Pekarsky, Morris  
 14 Woodside Avenue, Brooklyn, N. Y.
- Peltz, Phillip William  
 319 27th Street, Newport News, Va.
- Platt, Max  
 953 East 184th Street, New York, N. Y.
- Posner, Albert Hyman  
 923 Fox Street, New York, N. Y.
- Pospisil, Rudolph Joseph  
 30-70 32d Street, Astoria, N. Y.
- Rabinowitz, Kalman  
 236 Madison Street, New York, N. Y.
- Ramo, Louis  
 34 St. Marks Avenue, Rockville Center, N. Y.
- Reich, Bernard  
 163 Smith Street, Brooklyn, N. Y.
- Reife, William  
 1023 Hopkinson Avenue, Brooklyn, N. Y.
- Reisch, George F.  
 60 East Palisade Boulevard, Palisade Park,  
 N. J.
- Rende, Alfonso Louis  
 723 East 229th Street, New York, N. Y.
- Robinson, Abraham  
 237 Hart Street, Brooklyn, N. Y.
- Ronick, Charles  
 1251 Wheeler Avenue, New York, N. Y.
- Ronsheim, Julian  
 808 West End Avenue, New York, N. Y.
- Rosenberg, David  
 128 Goerck Street, New York, N. Y.
- Rosenberg, Hyman  
 387 Williams Avenue, Brooklyn, N. Y.
- Rosenberg, Irving  
 87 Siegel Street, Brooklyn, N. Y.
- Rosenberg, Isaac  
 1340 Grant Avenue, New York, N. Y.
- Rosenberg, Samuel  
 1175 East 9th Street, Brooklyn, N. Y.
- Rosenman, Herman  
 610 Concord Avenue, New York, N. Y.
- Rosenthal, William  
 55 West 110th Street, New York, N. Y.
- Rosmosky, Abraham  
 27 East 110th Street, New York, N. Y.
- Rothbaum, Milton  
 2800 Bronx Park East, New York, N. Y.
- Rothberg, Philip  
 1566 St. Marks Avenue, Brooklyn, N. Y.
- Rothman, Abraham Herbert  
 1335 College Avenue, New York, N. Y.
- Rovner, Louis  
 416 Henry Street, Brooklyn, N. Y.
- Rubenstein, Arthur  
 505 Essex Street, Brooklyn, N. Y.
- Rubin, Benjamin  
 493 Second Avenue, New York, N. Y.
- Rubin, Harold  
 870 Riverside Drive, New York, N. Y.
- Safarik, Mildred Robas  
 90-54 178th Street, Jamaica, N. Y.
- Saltzman, David  
 108 Moore Street, Brooklyn, N. Y.
- Schechter, Hyman  
 68 St. Marks Place, New York, N. Y.
- Schechter, Morris  
 348 East 9th Street, New York, N. Y.
- Scheer, John Jonas  
 3433 De Kalb Avenue, New York, N. Y.
- Scher, Wilfred  
 1157 Manor Avenue, New York, N. Y.
- Scherer, Paul  
 126 East 2d Street, New York, N. Y.
- Schneck, Max R.  
 2086 Bronx Park East, New York, N. Y.
- Scholefield, Charles Wesley  
 23 Ralph Street, Beacon, N. Y.
- Schulman, Solomon  
 840 Dawson Street, New York, N. Y.
- Schwartz, Hyman  
 819 East 168th Street, New York, N. Y.
- Scouras, Constantine  
 29 West 65th Street, New York, N. Y.
- Shapiro, Daniel  
 1518 East 172d Street, New York, N. Y.
- Sherman, Harold  
 1750-60 Bathgate Avenue, New York, N. Y.
- Shub, Abraham  
 632 Vermont Street, Brooklyn, N. Y.

- Shucard, Jacob  
920 Stone Avenue, Brooklyn, N. Y.
- Siderman, Morris  
2784 East 7th Street, Brooklyn, N. Y.
- Siegel, Joseph  
Ferndale, N. Y.
- Siegel, Solomon  
2300 Briggs Avenue, c/o Liebman, New York, N. Y.
- Silverman, Max  
646 Bradford Street, Brooklyn, N. Y.
- Singer, Max  
296 Delancey Street, New York, N. Y.
- Slobin, Jacob  
807 28th Street, Union City, N. J.
- Slutzkin, Frederick Israel  
667 Union Avenue, New York, N. Y.
- Spallucci, Michael  
516 Wheatland Avenue, Bound Brook, N. J.
- Spanier, Irving  
117 Clymer Street, Brooklyn, N. Y.
- Spetalnick, Max J.  
1245 Ward Avenue, New York, N. Y.
- Spirko, Stephen Michael  
5 Wilson Street, Jessup, Pa.
- Steinberg, Isidore  
1180 47th Street, Brooklyn, N. Y.
- Steiner, Elias  
880 East 178th Street, New York, N. Y.
- Stitzel, Louis  
308 East 6th Street, New York, N. Y.
- Stolper, Morris  
22 East 108th Street, New York, N. Y.
- Strauss, Morris  
104-06 East 2d Street, New York, N. Y.
- Thompson, Joseph Henry  
118-120 Eldridge Street, New York, N. Y.
- Tishler, George  
1593 Prospect Place, Brooklyn, N. Y.
- Tobias, Meyer  
537 Palisade Avenue, Jersey City, N. J.
- Troub, Louis  
1728 Sterling Place, Brooklyn, N. Y.
- Tunis, Philip  
212 East 105th Street, New York, N. Y.
- Twersky, Mary  
1843 West Rockland Street, Philadelphia, Pa.
- Valerio, Leo Joseph  
345 West 21st Street, New York, N. Y.
- Vasiliades, Angelo  
257 2d Street, Lakewood, N. J.
- Weidenbaum, Ralph  
248 East Houston Street, New York, N. Y.
- Weinberg, Victor  
1611 St. Marks Avenue, New York, N. Y.
- Weinstein, Louis  
1808 75th Street, Brooklyn, N. Y.
- Weintraub, Hyman  
57 Suffolk Street, New York, N. Y.
- Winokur, Aaron  
2223 Surf Avenue, Brooklyn, N. Y.
- Wisztreich, Edward Odon  
23 Post Avenue, New York, N. Y.
- Zeichner, Lewis Abraham  
1258 Fteley Avenue, New York, N. Y.
- Zunin, Louis  
980 Sutter Avenue, Brooklyn, N. Y.

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## BACHELOR OF SCIENCE IN PHARMACY,

OCTOBER 29, 1930

Lauri, Victor  
210 De Graw Avenue, Brooklyn, N. Y.

(1)

## PHARMACEUTICAL CHEMIST, OCTOBER 29, 1930

Sacharow, Samuel Sachne  
7111 Twentieth Avenue, Brooklyn, N. Y.

(1)

## GRADUATES IN PHARMACY, OCTOBER 7, 1930

Asbell, Joseph  
327 East 22d Street, Brooklyn, N. Y.

Capobianco, Dominick Thomas  
506 Brook Avenue, New York, N. Y.

Crafa, Mary P.  
9412 Van Wyck Avenue, Richmond Hill, N. Y.

Gitlin, Benjamin  
274 East 175th Street, New York, N. Y.

Gold, Morris  
1096 West Farms Road, c/o Schlosberg, New York, N. Y.

Goldfarb, Samuel  
630 West 172d Street, New York, N. Y.

Mordente, Constance Florence  
1860 Watson Avenue, New York, N. Y.

Mordente, Josephine  
1860 Watson Avenue, New York, N. Y.

Saperstein, Milton  
1519 Plimpton Avenue, New York, N. Y.

Schleider, Meyer K.  
122 West 55th Street, Bayonne, N. J.

Sclur, Sidney  
2012 East 13th Street, Brooklyn, N. Y.

Schwartz, Joseph George  
250 East 30th Street, New York, N. Y.

Silverstein, George Jeremiah  
12 Pinehurst Avenue, New York, N. Y.

Smith, Van Roy  
130 West 142d Street, New York, N. Y.

Webman, Larry  
402 South Second Avenue, Brooklyn, N. Y.

Wollenberg, Hamilton  
1914 Nesmith Place, Astoria, N. Y.

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## REGISTER OF STUDENTS, SESSION OF 1930-1931

## GRADUATE COURSE

Steinberg, Abraham  
465 Hinsdale Street, Brooklyn, N. Y.  
Tusuzian, Nishan  
327 West 21st Street, New York, N. Y.

(2)

## FOURTH YEAR UNIVERSITY CLASS

Benjamin, Irving  
35 Brookside Place, New Rochelle, N. Y.  
Betzer, Clifford William  
194-54 114th Road, St. Albans, N. Y.  
Canepa, John Joseph  
111 Anderson Avenue, Scarsdale, N. Y.  
Carlat, Bernard  
1914 East 18th Street, Brooklyn, N. Y.  
Dunay, Maurice  
1311 Grant Avenue, New York, N. Y.  
Keilin, Harry  
2800 Bronx Park East, New York, N. Y.  
Lichtenberg, Raymond  
615 Hudson Street, Hoboken, N. J.  
Massarsky, Solomon  
16 2d Street, Weehawken, N. J.  
Müller, Alfred Carl  
18-11 147th Street, Whitestone, N. Y.  
Nochimow, Eliezer  
489 Willoughby Avenue, Brooklyn, N. Y.  
Sadinsky, Hyman Benjamin  
60 Maple Street, Norwich, Conn.  
Seligman, Morris William  
317 East 27th Street, New York, N. Y.  
Stephanou, Eli  
33 Thames Street, Norwich, Conn.  
Stevens, Eli  
1160 59th Street, Brooklyn, N. Y.

(14)

## THIRD YEAR UNIVERSITY CLASS

Burch, Collingwood Vincent  
228 West 137th Street, New York, N. Y.  
Cassano, Caesar  
2147 Washington Avenue, New York, N. Y.  
Chesler, Morris  
4338 Gunther Avenue, New York, N. Y.  
Cohen, Gertrude  
93 Palisade Avenue, Hudson Heights, N. J.  
Fauci, Stephen Antonio  
1669 79th Street, Brooklyn, N. Y.  
Fehder, Paul  
107-21 Union Hall Street, Jamaica, N. Y.  
Feinberg, Solomon  
2820 West 36th Street, Brooklyn, N. Y.  
Gain, Ethel Annie Louise Jeffersonville, N. Y.  
Goldberg, Meyer  
1125 Noble Avenue, New York, N. Y.

Hoffman, Bernard William  
9127 St. Charles Court, Woodhaven, N. Y.  
Levsky, William Samuel  
2818 Heath Avenue, New York, N. Y.  
Lipschitz, Leo  
7007 Nineteenth Avenue, Brooklyn, N. Y.  
Mar, George Kaye  
225 East 31st Street, New York, N. Y.  
Marcus, Irving  
791 Troy Avenue, Brooklyn, N. Y.  
Mehlsak, Harry Nathan  
1985 Creston Avenue, New York, N. Y.  
Merring, Harry Louis  
3568 North 163d Street, Flushing, N. Y.  
Miller, Benjamin  
91 Center Street, Ellenville, N. Y.  
Orfuss, Abraham Jack  
2833 West 25th Street, Brooklyn, N. Y.  
Ronsheim, Julian  
808 West End Avenue, New York, N. Y.  
Schwartz, Israel Charles  
3 Manitou Avenue, Poughkeepsie, N. Y.  
Smith, Henry  
172-11 Highland Avenue, Jamaica, N. Y.  
Smith, Robert Jerome  
483 Hancock Street, Brooklyn, N. Y.  
Vigdarowitz, Martin  
65 East 99th Street, New York, N. Y.

(23)

## SECOND YEAR UNIVERSITY CLASS

Armao, John Anthony  
1024 Boston Road, New York, N. Y.  
Berg, Louis  
2709 Webb Avenue, New York, N. Y.  
Brown, Reginald C.  
54 Hawthorne Avenue, Yonkers, N. Y.  
Chasanowitz, Bernard  
96-28 Corona Avenue, Corona, N. Y.  
Clunie, Joseph Norman  
424 West 146th Street, New York, N. Y.  
D'Orazio, Robert Romeo  
767 East 237th Street, New York, N. Y.  
Dorr, Elinor Utley  
31 St. Marks Place, West Brighton, N. Y.  
Freedman, Samuel  
69 East 105th Street, New York, N. Y.  
Givens, Johnson B.  
6 Cottage Place, Freehold, N. J.  
Goldsmith, Evelyn Gergette  
414 East 141st Street, New York, N. Y.  
Hoeler, William J.  
99 Rose Terrace, Newark, N. J.  
Koller, Joseph Michael  
340 East 85th Street, New York, N. Y.

Pfister, C. Leonard  
49 East 19th Street, Brooklyn, N. Y.  
 Pozdena, Milton Alto  
6805 Woodside Avenue, Winfield, N. Y.  
 Sasmor, Ernest Jackson  
1227 Nelson Avenue, New York, N. Y.  
 Sher, Benjamin Philip  
272 Crown Street, Brooklyn, N. Y.  
 Thomas, James Grant  
Wells River, Vt.  
 Vigilante, Ovidio Carl  
41-21 Junction Boulevard, Corona, N. Y.  
 Wight, Christian Frank  
35 Greenwood Avenue, Bethel, Conn.  
 Ziliotto, Enrico  
121-20 Liberty Avenue, Richmond Hill,  
N. Y.  
 Zlinkoff, Bernard Welch  
233 West 112th Street, New York, N. Y.  
 (21)

## FIRST YEAR UNIVERSITY CLASS

Angello, Mary Veronica  
27 Cardott Street, Ridgway, Penn.  
 Bogart, Zelda Schmilevna  
18-19 Ditmas Avenue, Astoria, N. Y.  
 Burger, Irving  
170 Union Avenue, Peekskill, N. Y.  
 Cofsky, Eugene  
640 West 171st Street, New York, N. Y.  
 Fertig, Tobias Thomas  
141 Carlton Avenue, Brooklyn, N. Y.  
 Fusco, Luke Attilio  
471 West 159th Street, New York, N. Y.  
 Gabriel, Joseph, Jr.  
1647 Barnum Avenue, Bridgeport, Conn.  
 Geller, Manuel  
1418 Longfellow Avenue, New York, N. Y.  
 Gioia, Roland George  
409 Monastery Place, Union City, N. J.  
 Goldman, Isidore Charles  
Riverhead, N. Y.  
 Granberg, (Mrs.) Milda Otilia  
169 Montgomery Street, Scarsdale, N. Y.  
 Green, Alex  
155 East 94th Street, Brooklyn, N. Y.  
 Gross, James Ernest  
720 North Montello Street, Brockton, Mass.  
 Kucker, Theodore David  
1114 Magnolia Avenue, Elizabeth, N. J.  
 Kupersmith, Libby  
260 Hillside Avenue, Leonia, N. J.  
 Lizio, Joseph Alfred  
22-68 Crescent Street, Long Island City,  
N. Y.  
 Lyons, Nathan  
1673 74th Street, Brooklyn, N. Y.  
 Mende, William Charles  
44 Clifton Avenue, Clifton, N. J.  
 Mont, Isadore  
Monhegan Colony, Peekskill, N. Y.

Mucelli, Dante  
4031 Third Avenue, New York, N. Y.  
 Ortega, Mario DeJesus y Canet  
1 Prospect Park, West, Brooklyn, N. Y.  
 Sacks, Mildred Mae  
2410 Walton Avenue, New York, N. Y.  
 Schneider, William Edward Herman, Jr.  
90 Engle Street, Englewood, N. J.  
 Seltzer, Walter Maurice  
601 West 190th Street, New York, N. Y.  
 Stern, Aaron L.  
1165 Gerard Avenue, New York, N. Y.  
 Wackstein, Morris  
716 Cauldwell Avenue, New York, N. Y.  
 (26)

## THIRD YEAR COLLEGE CLASS

Abramson, Jacob  
15 Stevens Street, White Plains, N. Y.  
 Achiron, Harold  
54 Lewis Avenue, Brooklyn, N. Y.  
 Adelman, Rubin  
761 Elton Avenue, New York, N. Y.  
 Aloisi, Frank  
1251 Ward Avenue, New York, N. Y.  
 Anderson, Ometta Catheryn  
706 Terrace Place, Muskagee, Okla.  
 Armband, Max  
75 East 4th Street, New York, N. Y.  
 Arnowitz, Barnett  
3127 Seymour Avenue, New York, N. Y.  
 Avstreich, Albert  
503 West 176th Street, New York, N. Y.  
 Barile, Emerico Alfred  
235 West 67th Street, New York, N. Y.  
 Bateman, Edward Henry  
36 North Street, Pulaski, N. Y.  
 Bauer, Charles William  
249 Post Avenue, Westbury, N. Y.  
 Beghin, Frank A.  
336 East 107th Street, New York, N. Y.  
 Belfer, Samuel  
1136 Teller Avenue, Brooklyn, N. Y.  
 Belinsky, Benjamin  
2600 Creston Avenue, New York, N. Y.  
 Berkowitz, Aaron Joseph  
106 West 61st Street, New York, N. Y.  
 Berlin, Joseph  
106 Quincy Street, Passaic, N. J.  
 Berliner, Meyer  
6 Margot Place, Great Neck, N. Y.  
 Bernstein, Sydney  
2111 Hughes Avenue, New York, N. Y.  
 Birdslow, Kent Bishop  
Lacona, N. Y.  
 Blank, George  
20 East Gun Hill Road, New York, N. Y.  
 Bloom, Albert Sidney  
58 Fairmount Street, Norwich, Conn.

- Bloom, Isidore  
711 East 9th Street, New York, N. Y.
- Boghosian, Paul Der  
488 New York Avenue, Union City, N. J.
- Bookstaber, Leo  
32-42 33d Street, Long Island City, N. Y.
- Boxer, Louis  
427 East 170th Street, New York, N. Y.
- Braswell, James LeRoy  
265 Flatbush Avenue, Brooklyn, N. Y.
- Brown, Charles Lloyd  
2054 Fletcher Avenue, Fort Lee, N. J.
- Buono, Joseph  
30 Cornelia Street, New York, N. Y.
- Calabrese, Theodore Vincent  
3719 Foster Avenue, Brooklyn, N. Y.
- Calles, Nicholas Benjamin  
22 VanWort Place, Jersey City, N. J.
- Capillo, Joseph Bruno  
8717 94th Street, Woodhaven, N. Y.
- Caprio, Ralph  
140 Parker Street, Newark, N. J.
- Carpinelli, Michael Joseph  
281 Linden Avenue, Jersey City, N. J.
- Carroll, Harry  
570 Schenck Avenue, Brooklyn, N. Y.
- Caruso, Mario  
491 Warren Street, Brooklyn, N. Y.
- Cassera, Grace Leona  
1531 68th Street, Brooklyn, N. Y.
- Catozzio, Peter  
729 Adam Street, West New York, N. J.
- Cecere, Natale  
431 28th Street, Woodcliff, N. J.
- Charlip, Abraham M.  
877 Rutland Road, Brooklyn, N. Y.
- Chefetz, Hyman Herman  
540 East 5th Street, New York, N. Y.
- Chernow, Jack  
518 Pennsylvania Avenue, Brooklyn, N. Y.
- Chomsky, Isidore  
1443 38th Street, Brooklyn, N. Y.
- Christmann, Frederick Walter  
34 Oak Street, Valley Stream, N. Y.
- Cohen, Abe  
2147 Washington Avenue, New York, N. Y.
- Cohen, Alexander  
486 Kosciusko Street, Brooklyn, N. Y.
- Cohen, Charles  
11 Tudor Place, New York, N. Y.
- Cohen, David  
100 Wegman Parkway, Jersey City, N. J.
- Cohen, Frank  
2216 Douglass Street, Brooklyn, N. Y.
- Cohen, Herman  
1662 45th Street, Brooklyn, N. Y.
- Cohen, Joseph  
110 Jersey Avenue, Port Jervis, N. Y.
- Cohen, Maximilian  
61 East 99th Street, New York, N. Y.
- DeMucci, Frank Robert  
40-36 97th Street, Corona, N. Y.
- Dworkowitz, Jesse  
420 Avenue S, Brooklyn, N. Y.
- Edelstein, Isadore  
305 East Mine Street, Hazleton, Penn.
- Eichler, Julian  
31-11 85th Street, Jackson Heights, N. Y.
- Eichner, Jerome  
51 Farrington Street, Flushing, N. Y.
- Eicken, Nathan  
180 Mercer Street, Jersey City, N. J.
- Eisenberg, Robert  
1424 Parker Street, New York, N. Y.
- Epstein, Marvin Maurice  
110 Walnut Street, Springfield, Mass.
- Epstein, Paul  
72 Jackson Avenue, Jersey City, N. J.
- Evans, Max  
364 Quincy Street, Brooklyn, N. Y.
- Feigelson, Irving  
2838 West 19th Street, Brooklyn, N. Y.
- Feinberg, Irving Bernard  
469 Cleveland Street, Brooklyn, N. Y.
- Ferrara, Vincent  
1714 71st Street, Brooklyn, N. Y.
- Fialk, Robert  
198 Hopkins Avenue, Jersey City, N. J.
- Fichiera, Michael  
1511 Castlehill Avenue, New York, N. Y.
- Ficks, Jacob  
8675 Bay 16th Street, Brooklyn, N. Y.
- Fishberg, Murray Leonard  
153 Morton Place, New York, N. Y.
- Fitzer, Aaron  
1166 Theriot Avenue, New York, N. Y.
- Folcarelli, Urbino E. G.  
108 East 87th Street, New York, N. Y.
- Fox, Jacob  
162 Lee Avenue, Brooklyn, N. Y.
- Frank, Jacob  
493 East 135th Street, New York, N. Y.
- Frankel, David  
1156 Eastern Parkway, Brooklyn, N. Y.
- Frankel, Leonard Robert  
764 Trinity Avenue, New York, N. Y.
- Frankel, Sidney  
744 Hudson Avenue, West New York, N. J.
- Freed, Israel  
285 Van Buren Street, Brooklyn, N. Y.
- Friedberg, Alexander  
61 East 95th Street, New York, N. Y.
- Friedland, Peter Robert  
3999 Dickinson Avenue, New York, N. Y.
- Gaal, Albert George  
574 Manhattan Avenue, Brooklyn, N. Y.

- Garrambone, Carmelo Joseph  
25-27 33d Street, Long Island City, N. Y.
- Geller, Isidore Benjamin  
1218 Hoe Avenue, New York, N. Y.
- Gellis, Joseph  
156 East 171st Street, New York, N. Y.
- Gerson, Alex  
557 Koscuisko Street, Brooklyn, N. Y.
- Ginsberg, (Mrs.) Asna Mendelevska  
53 West Tremont Street, New York, N. Y.
- Gise, Meyer  
1862 Bay Ridge Parkway, Brooklyn, N. Y.
- Giuliani, Arthur J.  
246½ Central Avenue, Union City, N. J.
- Glazer, Harry  
1857 Washington Avenue, New York, N. Y.
- Glick, William Joseph  
1694 Coventry Road, Cleveland, Ohio
- Glinefsky, William  
1701 Eastburn Avenue, New York, N. Y.
- Godlin, Abraham Woodbourne, N. Y.
- Gold, Joseph  
1434 Bryant Avenue, New York, N. Y.
- Goldstein, Martin  
505 Bergen Avenue, Jersey City, N. J.
- Goldstein, Max  
871 Longwood Avenue, New York, N. Y.
- Gottlieb, George  
310 East 30th Street, New York, N. Y.
- Grant, Raymond Lorenzo  
1 Charlton Street, New York, N. Y.
- Greenfader, Morris Benjamin  
2223 62d Street, Brooklyn, N. Y.
- Gutes, Morris Charles  
17-27 Van Sicklen Avenue, Brooklyn, N. Y.
- Halper, Arthur Mathews  
1055 University Avenue, New York, N. Y.
- Halper, Lewis  
1208 Maple Avenue, Peekskill, N. Y.
- Halperin, Irving Max  
419 Ocean Avenue, Jersey City, N. J.
- Hamann, George Peter Dietrich  
398 Himrod Street, Brooklyn, N. Y.
- Hartman, Edward  
123 Cornelia Street, Brooklyn, N. Y.
- Herbst, Arthur Stephan  
342 East 77th Street, New York, N. Y.
- Hickman, Louis Harry  
18 St. Nickolas Place, New York, N. Y.
- Hofmann, Henry Conrad  
305 Dill Place, Brooklyn, N. Y.
- Homer, Theodore Howard, Jr.  
207 West 140th Street, New York, N. Y.
- Horowitz, Alex  
79 East 107th Street, New York, N. Y.
- Horowitz, Barnet  
811 Avenue U, Brooklyn, N. Y.
- Horowitz, Samuel Louis  
558 Vermont Street, Brooklyn, N. Y.
- Hubbard, Earl Edmund  
126 Second Avenue, Bay Shore, N. Y.
- Israel, Samuel  
563 Bedford Avenue, Brooklyn, N. Y.
- Jacaruso, John  
150 Sullivan Street, New York, N. Y.
- Jacobs, Herman  
296 Rochester Avenue, Brooklyn, N. Y.
- Jacobs, Meyer Jack  
109 East Broadway, New York, N. Y.
- Jaffe, Max Liberty, N. Y.
- Kaplan, Samuel  
520 Medbury Avenue, Detroit, Mich.
- Kaufman, Michael Israel  
1350 Fulton Avenue, New York, N. Y.
- Kaufman, Sydney William  
27 River Road, Fair Lawn, N. J.
- Keller, Murray  
191 South 9th Street, Brooklyn, N. Y.
- Kerewsky, Isidor  
360 Garden Avenue, Mt. Vernon, N. Y.
- Koslowsky, Harry  
1439 East 37th Street, Brooklyn, N. Y.
- Kramer, Benjamin  
1143 Longfellow Avenue, New York, N. Y.
- Kugelmass, Samuel  
155 South 4th Street, Brooklyn, N. Y.
- Lampert, Samuel  
431 Pennsylvania Avenue, Brooklyn, N. Y.
- Last, Ben  
250 East Gun Hill Road, New York, N. Y.
- Lehrer, Morris  
186 Riverdale Avenue, Brooklyn, N. Y.
- Lepard, Thomas Horley  
570 West 204th Street, New York, N. Y.
- Levine, Hyman Israel  
433 Rockaway Parkway, Brooklyn, N. Y.
- Levine, Jonas  
2282 East 7th Street, Brooklyn, N. Y.
- Levine, Samuel  
801 West 181st Street, New York, N. Y.
- Levitt, Morris  
8950 Woodhaven Boulevard, Woodhaven, N. Y.
- Lewitus, Richard  
1517 Walton Avenue, New York, N. Y.
- Lipetz, Morris  
Elton Street, Riverhead, N. Y.
- Lipschitz, Edward  
236 East 82d Street, New York, N. Y.
- Liss, Max  
327 East 20th Street, New York, N. Y.
- Lopez, Anacleto  
21 East 118th Street, New York, N. Y.
- Loss, Margaret  
1581 Fulton Avenue, New York, N. Y.

- MacCurran, James Francis  
12 3d Street, Weehawken, N. J.
- McSharry, William  
10 Dashby Court, Rockaway Beach, N. Y.
- Madansky, Nathan  
430 Richmond Avenue, Maplewood, N. J.
- Malmud, Mayer M.  
4320 Sixteenth Avenue, Brooklyn, N. Y.
- Mancini, Thomas Anthony  
316 East 29th Street, New York, N. Y.
- Marino, Frank Ermando  
20-23 120th Street, College Point, N. Y.
- Marks, Edward Herman  
400 East Raynor Avenue, Syracuse, N. Y.
- Marotta, Raphael Anthony  
4307 42d Street, Sunnyside, N. Y.
- Mascellaro, Hector Edward  
111 Taylor Street, Long Island City, N. Y.
- Matthes, Herbert Max  
209 12th Street, College Point, N. Y.
- Megna, John  
1080 Sutter Avenue, Brooklyn, N. Y.
- Mersel, Joseph  
215 West 10th Street, New York, N. Y.
- Meyer, Morris  
542 East 14th Street, New York, N. Y.
- Meyerson, Abraham  
1041 Elden Avenue, New York, N. Y.
- Miller, Abraham  
197 Van Buren Street, Brooklyn, N. Y.
- Miller, Benjamin  
1347 40th Street, Brooklyn, N. Y.
- Mishler, Benjamin  
52 Belmont Avenue, Brooklyn, N. Y.
- Monestersky, Morris  
1459 54th Street, Brooklyn, N. Y.
- Moroch, David  
2116 66th Street, Brooklyn, N. Y.
- Nelson, Isidore Ben  
813 Center Street, Bowling Green, Ky.
- Newer, Joseph George  
1514 Lincoln Place, Brooklyn, N. Y.
- Novendstern, David  
130 Ocean Avenue, Jersey City, N. J.
- Ochitell, Morris  
2921 West 36th Street, Brooklyn, N. Y.
- Oppenheim, Emanuel  
4802 Ft. Hamilton Parkway, Brooklyn, N. Y.
- Palanzo, Charles Rocco  
134 Willow Street, Yonkers, N. Y.
- Perry, Harold  
1561 Union Street, Brooklyn, N. Y.
- Perry, Sidney  
1561 Union Street, Brooklyn, N. Y.
- Perveler, Martin Leo  
1710 Hoe Avenue, New York, N. Y.
- Petziner, Norman  
1225 Seneca Avenue, New York, N. Y.
- Pomerantz, Max  
150 East 2d Street, New York, N. Y.
- Ponticello, Francis Anthony  
52 Council Street, Rochester, N. Y.
- Posner, Sidney  
923 Fox Street, New York, N. Y.
- Razzo, Frances Mary Amelia  
125 Second Avenue, New York, N. Y.
- Ricciardi, Ralph  
1957 West 4th Street, Brooklyn, N. Y.
- Risch, Samuel Saul  
3052 La Salle Avenue, New York, N. Y.
- Riveles, George  
63 East 100th Street, New York, N. Y.
- Riveles, Julius  
725 East 9th Street, New York, N. Y.
- Rocco, Emilio John  
27 St. Edwards Street, Brooklyn, N. Y.
- Rosenberg, Solomon  
3340 71st Street, Jackson Heights, N. Y.
- Rosenberg, William Nathaniel  
838 West End Avenue, New York, N. Y.
- Rothleder, Paul  
2869 West 27th Street, Brooklyn, N. Y.
- Rubin, Paul  
630 Garden Street, Hoboken, N. J.
- Rubinstein, Jack  
3225 Bainbridge Avenue, New York, N. Y.
- Sacco, John  
2 Ocean Avenue, Deal, N. J.
- Saia, Joseph John  
7 Court Street, Astoria, N. Y.
- Savitch, Milton  
411 East 15th Street, New York, N. Y.
- Schloss, Max  
1028 Simpson Street, New York, N. Y.
- Schneider, Nathan  
283 Liberty Avenue, Brooklyn, N. Y.
- Schwartz, Abraham  
1533 Minford Place, Brooklyn, N. Y.
- Schwartz, Isadore  
69 Liberty Place, Weehawken, N. J.
- Schwartz, Max  
624 Hopkinson Avenue, Brooklyn, N. Y.
- Schwartz, Sidney  
256 Rivington Street, New York, N. Y.
- Seidel, Leo  
1561 West 11th Street, Brooklyn, N. Y.
- Seppi, Dominick  
319 3d Street, Fairview, N. J.
- Shefkowitz, Julius L.  
1203 Westchester Avenue, New York, N. Y.
- Silberman, Joel  
585 East 169th Street, New York, N. Y.
- Silverman, Hyman  
424 Chester Street, Brooklyn, N. Y.
- Simon, Irving Edward  
878 East 176th Street, New York, N. Y.

- Simon, Moses Benjamin  
137 Mansion Street, Poughkeepsie, N. Y.
- Smolowitz, Julius  
1575 Madison Avenue, New York, N. Y.
- Snyder, Sol  
45 Pinehurst Avenue, New York, N. Y.
- Soldo, Americo  
419 East 160th Street, New York, N. Y.
- Starman, Arthur Abraham  
1202 Miller Street, Utica, N. Y.
- Stein, Irving  
206 West 99th Street, New York, N. Y.
- Stein, Solomon Charles  
1674 East 13th Street, Brooklyn, N. Y.
- Steir, Edward  
504 Grand Street, New York, N. Y.
- Strongin, Jack  
1933 Union Street, Brooklyn, N. Y.
- Tabachnick, William  
1709 Bathgate Avenue, New York, N. Y.
- Tannenbaum, Nathan  
52 Bay 22d Street, Brooklyn, N. Y.
- Tenebra, Mary  
4057 97th Street, Corona, N. Y.
- Tiersfeld, Nathan  
14-16 East 108th Street, New York, N. Y.
- Tomashoff, Sidney  
4502 Sixteenth Avenue, Brooklyn, N. Y.
- Tortora, Anthony  
194 Cambridge Avenue, Jersey City, N. J.
- Troisi, Mario Philip  
2211 Second Avenue, New York, N. Y.
- Uva, Nicholas  
138 Sackman Street, Brooklyn, N. Y.
- Valenti, Joseph  
378 Fulton Avenue, Jersey City, N. J.
- Van Beuren, John Horace  
81 Chambers Street, Newburgh, N. Y.
- Vellensky, Bernard  
1437 40th Street, Brooklyn, N. Y.
- Volpert, Bernard Leon  
Newman P. O., Lake Placid, N. Y.
- Wagreich, Arthur  
1216 Hoe Avenue, New York, N. Y.
- Waldinger, Sam Solomon  
150 Keap Street, Brooklyn, N. Y.
- Wallerick, Solomon  
82 Columbia Street, New York, N. Y.
- Wart, Arthur Henry  
Sandy Creek, N. Y.
- Washington, (Mrs.) Izetta L. A.  
450 West 149th Street, New York, N. Y.
- Weinberg, Louis Joseph  
257 Columbus Avenue, New York, N. Y.
- Weinstein, Morris  
1546 East 172d Street, New York, N. Y.
- Weiss, Harold  
140-29 Cherry Avenue, Flushing, N. Y.
- Weiss, Martin  
1521 Madison Avenue, New York, N. Y.
- Weiss, Samuel  
2162 Valentine Avenue, New York, N. Y.
- Welt, Morton  
2056 74th Street, Brooklyn, N. Y.
- Wexlin, Hyman  
1219 Rosedale Avenue, New York, N. Y.
- Wiesenfeld, Irving  
957 Fox Street, New York, N. Y.
- Williams, Clifford Albert  
163 West 121st Street, New York, N. Y.
- Winer, Abe Marvin  
440 East 6th Street, New York, N. Y.
- Wise, Fred  
1726 Davidson Avenue, New York, N. Y.
- Yachnowitz, Louis  
120 Ludlow Street, New York, N. Y.
- Zanca, Natale Louis  
1320 Brook Avenue, New York, N. Y.
- Zanchelli, Gene Natalino  
343 East 152d Street, New York, N. Y.
- Zimand, Phillip  
2946 West 27th Street, Brooklyn, N. Y.
- (236)
- SECOND YEAR COLLEGE CLASS
- Anopol, Annie  
51 Hamilton Place, New York, N. Y.
- Aponofsky, Anna  
Broadway and Little Neck Road, Little Neck, N. Y.
- Avignone, Carlo James  
Massapequa, N. Y.
- Badagliacca, Vincent Anthony  
130 George Street, Brooklyn, N. Y.
- Barbera, Anthony Joseph  
549 Henry Street, Brooklyn, N. Y.
- Bashevkin, Isaac  
1012 Rutland Road, Brooklyn, N. Y.
- Becker, Sidney Simon  
2844 West 1st Street, Brooklyn, N. Y.
- Belitz, Morris  
501 West 175th Street, New York, N. Y.
- Bellet, Louis  
23-09 Astoria Avenue, Astoria, N. Y.
- Berkowitz, Efreml Leslie  
3242 Bedford Avenue, Brooklyn, N. Y.
- Bittar, Dewey  
5101 Sixth Avenue, Brooklyn, N. Y.
- Blick, Richard  
864 Troy Avenue, Brooklyn, N. Y.
- Bologh, Sidney David  
2358 84th Street, Brooklyn, N. Y.
- Burton, Samuel  
1471 St. Marks Avenue, Brooklyn, N. Y.
- Busch, David Carlyle  
1215 Nielson Avenue, Far Rockaway, N. Y.
- Caso, Attilio Arthur  
1209 Beach Avenue, New York, N. Y.



- Chadkin, Jason Abraham  
1012 49th Street, Brooklyn, N. Y.
- Chu, Kang  
10 Doyers Street, New York, N. Y.
- Cohen, Benjamin  
510 West 123d Street, New York, N. Y.
- Colarusso, Thomas  
22 Harrison Street, Mt. Vernon, N. Y.
- Coller, Gertrude Ethel  
840 Castleton Avenue, West New Brighton, N. Y.
- Coller, Pearl  
840 Castleton Avenue, West New Brighton, N. Y.
- Cosenza, Salvatore  
216 Union Street, Brooklyn, N. Y.
- Cowan, John Wesley  
244 Palmer Avenue, Mamaroneck, N. Y.
- Cozzolino, Sylvia Rafaela  
564 East 191st Street, New York, N. Y.
- D'Arco George Daniel  
85 North Elliott Place, Brooklyn, N. Y.
- DeAngelis, Dominick Francis  
1160 63d Street, Brooklyn, N. Y.
- Diecidue, Ignatius  
698 Flushing Avenue, Brooklyn, N. Y.
- Doctors, Albert  
101-19 Vine Street, Corona, N. Y.
- Eilberg, Abraham  
323 Ashford Street, Brooklyn, N. Y.
- Emrich, Ralph James  
115 Maine Avenue, West New Brighton, N. Y.
- Erwich, Irving Harold  
11 Newin Street, Corona, N. Y.
- Febbraio, Edmund  
1877 Longfellow Avenue, New York, N. Y.
- Feinberg, Louis Julius  
121 Dahill Road, Brooklyn, N. Y.
- Feitelberg, Morton  
2101 Morris Avenue, New York, N. Y.
- Florentino, Anthony Louis  
1280 Bergen Street, Brooklyn, N. Y.
- Foley, Vincent Aloysius  
915 Park Avenue, Hoboken, N. J.
- Friedman, Oscar  
2 Webster Avenue, Jersey City, N. J.
- Frisch, Bernard  
789 West End Avenue, New York, N. Y.
- Fromm, Kate  
1226 Sherman Avenue, New York, N. Y.
- Garzetta, Carmel  
101 3d Street, New Dorp, N. Y.
- Gershkowitz, Louis  
415 Powell Street, Brooklyn, N. Y.
- Glaser, Herman  
442 Throop Avenue, Brooklyn, N. Y.
- Glaser, Jacob Julius  
724 East 11th Street, New York, N. Y.
- Glick, Esther Henrietta Central Valley, N. Y.
- Glotter, Isadore George  
1908 Prospect Avenue, New York, N. Y.
- Gnaizda, Samuel Joseph  
93 Schenck Avenue, Brooklyn, N. Y.
- Goldberg, David  
95 Newport Street, Brooklyn, N. Y.
- Goldberg, Isidore George  
2266 Church Avenue, Brooklyn, N. Y.
- Goodrich, Minnie  
2070 Creston Avenue, New York, N. Y.
- Gordon, Jacob  
269 Rochester Avenue, Brooklyn, N. Y.
- Granet, Morris  
395 Powell Street, Brooklyn, N. Y.
- Greenfield, Benjamin  
618 East 140th Street, New York, N. Y.
- Grenadir, Hyman David  
2232 Douglass Street, Brooklyn, N. Y.
- Guattery, Peter Joseph  
181 Wickham Avenue, Middletown, N. Y.
- Gulli, Antoinette Rita  
7714 Sixteenth Avenue, Brooklyn, N. Y.
- Gumer, Max Simon  
274 Ormond Street, Rochester, N. Y.
- Gussow, Max  
911 Tiffany Street, New York, N. Y.
- Haber, Alexander Charles  
1822 Mohegan Avenue, New York, N. Y.
- Handsman, Harry Lerner  
564 Linden Boulevard, Brooklyn, N. Y.
- Harris, Harry  
83 Norfolk Street, New York, N. Y.
- Heiden, Eugenia  
819 Trinity Avenue, New York, N. Y.
- Heller, John Andrew Paul  
3 Oak Street, Poughkeepsie, N. Y.
- Henkin, Bernard  
210 West 80th Street, New York, N. Y.
- Homnik, Jacob  
645 East 6th Street, New York, N. Y.
- Hostomsky, Edward  
106-18 27th Avenue, East Elmhurst, N. Y.
- Izenberg, Leo  
601 East 23d Street, Paterson, N. J.
- Jacobs, Frank  
429 Berry Street, Brooklyn, N. Y.
- Jones, Herbert Herman  
11 5th Street, Weehawken, N. J.
- Kaplan, Jacob  
989 Fox Street, New York, N. Y.
- Kasday, Julius  
97-52 Corona Avenue, Corona, N. Y.
- Ketcham, George Vanderbilt  
Gilbert Street, Northport, N. Y.
- Kirschenbaum, Samuel  
416-18 East 10th Street, New York, N. Y.

- Koretsky, Fanny  
359 West 45th Street, New York, N. Y.
- Kristal, Meyer  
1682 Third Avenue, New York, N. Y.
- LeBlanc, Milton  
78-15 Wayne Street, Middle Village, N. Y.
- Levy, Julius  
2377 Creston Avenue, New York, N. Y.
- Levy, Sarah Ida  
512 36th Street, Union City, N. J.
- Lubin, Sydney Wellsworth  
1684 Dohill Road, Brooklyn, N. Y.
- MacLennan, David Grant  
45 School Street, Manhasset, N. Y.
- Maduri, Elizabeth Virginia  
164 Washington Park, Brooklyn, N. Y.
- Mahler, Henry  
745 East 175th Street, New York, N. Y.
- Mavrogiannis, John George  
885 East 181st Street, New York, N. Y.
- Mayhams, Joseph Mortimer  
409 Orange Street, Georgetown, S. C.
- Messina, Anthony Pasquale  
56-58 Macdougall Street, New York, N. Y.
- Milchman, David  
167 Forbell Avenue, Brooklyn, N. Y.
- Mufson, Morris  
523 Gregory Avenue, Passaic, N. J.
- Naliboff, Edward Murray  
216 East 67th Street, New York, N. Y.
- Namiat, Morris  
112 East Broadway, New York, N. Y.
- Nardoza, Joseph Salvatore  
413 Madison Street, Hoboken, N. J.
- Nelson, R. Lewis  
813 Center Street, Bowling Green, Ky.
- Newman, Percy North White Lake, N. Y.
- O'Connor, Harry Joseph  
2540 Humphries Street, East Elmhurst, N. Y.
- Padnis, Nathan  
730 Oakland Place, New York, N. Y.
- Paley, Irving Benedict  
58 Howard Avenue, Brooklyn, N. Y.
- Parrini, Arthur Thomas  
1312 Avenue H, Brooklyn, N. Y.
- Pavone, Egidio  
31 Mt. Hope Place, New York, N. Y.
- Perelzweig, Samuel  
1766 57th Street, Brooklyn, N. Y.
- Pfeffer, Alfred  
1177 Nelson Avenue, New York, N. Y.
- Photoglou, George Michael  
204 Manhattan Avenue, New York, N. Y.
- Pinck, Nathan  
84 Henry Street, Passaic, N. J.
- Plotkin, Morris Louis  
642 High Street, Newark, N. J.
- Pucillo, Nataleen Virginia  
Tuxedo Park, N. Y.
- Rabinowitz, Ephroim  
142 West 112th Street, New York, N. Y.
- Rand, George  
667 West 161st Street, New York, N. Y.
- Reddick, Aubert Evans  
409 Edgcombe Avenue, New York, N. Y.
- Richman, Alexander  
29 Montieith Street, Brooklyn, N. Y.
- Rocchio, Philip Paul  
108-22 48th Street, Corona, N. Y.
- Rosen, Abraham  
2109 Daly Avenue, New York, N. Y.
- Rosenberg, Hyman Fred  
1530 Sheridan Avenue, New York, N. Y.
- Rosenberg, Mandel  
4 Hinman Street, Middle Village, N. Y.
- Roshkofsky, Jack  
2077 East 12th Street, Brooklyn, N. Y.
- Rovira, Frank  
24 West 112th Street, New York, N. Y.
- Ruggiero, William E.  
49 Highland Terrace, Manhasset, N. Y.
- Safarik, Joseph John  
80 Grand Street, Springfield, Mass.
- Saks, Joseph Herman  
396 Schenck Avenue, Brooklyn, N. Y.
- Salmeri, Frances Mary  
1041 67th Street, Brooklyn, N. Y.
- Schansinger, Benjamin  
6819 Morton Avenue, Middle Village, N. Y.
- Schnaer, Abraham Isador  
473 Pennsylvania Avenue, Brooklyn, N. Y.
- Schneider, Moses  
1078 Stebbins Avenue, New York, N. Y.
- Schweig, Harry Karl  
1200 Leland Avenue, New York, N. Y.
- Simon, Isidore  
3165 Coney Island Avenue, Brooklyn, N. Y.
- Simon, Samuel  
1535 Minford Place, New York, N. Y.
- Singer, Frank Philip  
1766 Washington Avenue, New York, N. Y.
- Solkin, David  
1595 Macombs Road, New York, N. Y.
- Stein, Abraham  
864 Troy Avenue, Brooklyn, N. Y.
- Steinhauer, Bernard  
1258 43d Street, Brooklyn, N. Y.
- Ticktin, George Beverley  
618 Euclid Avenue, Toronto, Canada
- Trovato, Michael Alexander  
32-49 100th Street, Corona, N. Y.
- Umlas, Isidore  
3514 Mermaid Avenue, Brooklyn, N. Y.
- Unger, Bernard  
522 West 161st Street, New York, N. Y.
- Villone, Anna Rose  
161 West 4th Street, New York, N. Y.

- Wagner, Morris  
329 East 56th Street, New York, N. Y.
- Wallach, Lawrence  
535 West 135th Street, New York, N. Y.
- Waugh, Theodore  
79-34 Sixty-seventh Road, Middle Village,  
N. Y.
- Weiss, Harry  
19 New Lots Avenue, Brooklyn, N. Y.
- Weiss, Stanley Daniel  
30 Fairview Avenue, New York, N. Y.
- Werst, Francis Bernard  
906 Cottage Place, Union City, N. J.
- Winokur, Emanuel  
577 Bushwick Avenue, Brooklyn, N. Y.
- Wishner, Jacob  
222 Marcy Avenue, Brooklyn, N. Y.
- Wishny, Gilbert  
88 East 111th Street, New York, N. Y.
- Wohl, Benjamin  
174 Eldridge Street, New York, N. Y.
- Woien, David  
1255 Brook Avenue, New York, N. Y.
- Wolff, Max  
706 Riverside Drive, New York, N. Y.
- Wunsh, Theodore Eugene  
1329 Fifth Avenue, New York, N. Y.
- Yarrow, Harold  
104-55 113th Street, Richmond Hill, N. Y.
- Yarvis, Samuel  
490 Warwick Street, Brooklyn, N. Y.
- Youran, Morris  
645 West 160th Street, New York, N. Y.
- Zanca, Anthony  
1320 Brook Avenue, New York, N. Y.
- Zeichner, Harold  
1145 Morrison Avenue, New York, N. Y.
- Zuckerman, Abraham  
360 Beekman Avenue, New York, N. Y.
- Zykorie, Emil  
142 Ross Street, Brooklyn, N. Y.
- (152)
- FIRST YEAR COLLEGE CLASS
- Adler, Nathan  
201 Broad Street, Stapleton, N. Y.
- Anderson, Lloyd  
9 Cumberland Avenue, Verona, N. J.
- Antman, Herbert Robert  
513 Sheffield Avenue, Brooklyn, N. Y.
- Anselmo, Joseph  
23-49 36th Street, Astoria, N. Y.
- Armentano, Joseph Lawrence  
3558 71st Street, Jackson Heights, N. Y.
- Baker, Samuel David  
53 Victory Boulevard, Tompkinsville, N. Y.
- Baumgarten, Harry Meyer  
1513 39th Street, Brooklyn, N. Y.
- Bazilian, Jacob 315 Idaho Street, Farrell, Pa.
- Beller, Max Emanuel  
513 East 79th Street, New York, N. Y.
- Bennett, Frank  
563 South Greenwich Avenue, Greenwich,  
Conn.
- Bernstein, Moses  
766 Ninth Avenue, New York, N. Y.
- Bloom, David Alfred  
58 Fairmount Street, Norwich, Conn.
- Bologh, Joseph  
862 Kelly Street, New York, N. Y.
- Burano, John Ernest  
403 East 100th Street, New York, N. Y.
- Byron, Grace Marie  
224-23 Ninety-second Avenue, Queens Village,  
N. Y.
- Casey, Charles Washingtonville, N. Y.
- Catanese, James  
39 Olivia Street, Port Chester, N. Y.
- Cerciello, Louis Joseph  
22 Westervelt Place, Jersey City, N. J.
- Cerulli, William  
75 Withers Street, Brooklyn, N. Y.
- Chu, James Hing  
10 Doyers Street, New York, N. Y.
- Cohen, Hymen  
915 Elsmere Place, New York, N. Y.
- Cohen, Joseph  
995 East 167th Street, New York, N. Y.
- Cooper, Morris Sredna  
1069 Morris Park Avenue, New York, N. Y.
- Corrado, Anthony Ludwig J.  
66 Forty-fifth Avenue, Corona, N. Y.
- Curtis, Edward Hatch, Jr.  
20 Newell Road, Bristol, Conn.
- Davidson, David  
571 South Boulevard, New York, N. Y.
- Davis, David  
1771 57th Street, Brooklyn, N. Y.
- Dobruskin, George  
1548 Bryant Avenue, New York, N. Y.
- D'Onofrio, Rocco Elias  
145 Hickock Avenue, Syracuse, N. Y.
- Doyle, Stephen Joseph  
8 West Park Place, Great Neck, N. Y.
- Drobner, Harry  
219 Henry Street, New York, N. Y.
- Dulchin, Eli  
225 West 12th Street, New York, N. Y.
- Edghill, Kenneth  
68 West 139th Street, New York, N. Y.
- Englander, Milton  
776 East 161st Street, New York, N. Y.
- Feldman, Philip Jesse  
328 South Ninth Avenue, Mt. Vernon, N. Y.
- Fish, Elias 425 Keap Street, Brooklyn, N. Y.
- Fisher, Arthur Samuel  
701 Croton Park North, New York, N. Y.

- Fleisch, Wolf  
2136 Clinton Avenue, New York, N. Y.
- Fleischmann, Max  
928 56th Street, Brooklyn, N. Y.
- Freedman, Morris Aaron  
704 LeRoy Street, Watertown, N. Y.
- Furman, Marcus  
1438 42d Street, Brooklyn, N. Y.
- Gammer, Irving  
1876 Clinton Avenue, New York, N. Y.
- Gettleman, Carl  
825 East 170th Street, New York, N. Y.
- Gevirtz, Hyman Julius  
178 Amboy Street, Brooklyn, N. Y.
- Gold, Alex 88 Elm Street, Rocky Hill, Conn.
- Goldstein, Benjamin  
871 Longwood Avenue, New York, N. Y.
- Goldstein, Maurice  
120 Stockton Street, Hightstown, N. J.
- Gomez, Augusto  
110 West 113th Street, New York, N. Y.
- Goodkin, Harold Gabriel  
1059 Tiffany Street, New York, N. Y.
- Goretzky, Israel  
808 Lafayette Avenue, Brooklyn, N. Y.
- Grassi, Julius Caesar  
67 Mill Street, Newburgh, N. Y.
- Green, William  
1017 Intervale Avenue, New York, N. Y.
- Greenbaum, Jack  
1425 Wythe Place, New York, N. Y.
- Guberman, Louis  
1095 Boston Road, New York, N. Y.
- Gzibek, Samuel  
3107 84th Street, Jackson Heights, N. Y.
- Hill, Harold Edward  
258 Union Avenue, Mt. Vernon, N. Y.
- Homer, Max Jack  
171 Clinton Street, New York, N. Y.
- Horowitz, David  
220 Westervelt Avenue, New Brighton,  
N. Y.
- Jermyn, Edward  
116 Clay Avenue, Scranton, Pa.
- Jerome, Peter Ralph  
10-19 47th Road, Long Island City, N. Y.
- Kagle, Arthur  
598 West 178th Street, New York, N. Y.
- Kahner, Paul  
1339 Fteley Avenue, New York, N. Y.
- Kaplan, Leo  
946 East 181st Street, New York, N. Y.
- Katz, Philip 18 Van Cliff, Corona, N. Y.
- Kessler, Nathan  
781 Fairmount Place, New York, N. Y.
- Kestenbaum, Adolph  
287 Henry Street, New York, N. Y.
- Kluge, Solomon Joseph  
24 Bennett Avenue, New York, N. Y.
- Klugman, Harry  
953 Tiffany Street, New York, N. Y.
- Koblin, David Charles  
151 High Avenue, Nyack, N. Y.
- Koller, John Andrew  
340 East 85th Street, New York, N. Y.
- LaRocca, Frank  
139 East 4th Street, New York, N. Y.
- Lazar, Nathan  
474 Jerome Street, Brooklyn, N. Y.
- Lefkowitz, Leo  
2707 Barnes Avenue, New York, N. Y.
- Lettieri, Nunzi Francis  
162 Schenectady Avenue, Brooklyn, N. Y.
- Levine, Sidney Gerald New Egypt, N. J.
- Levy, Morris  
834 45th Street, Brooklyn, N. Y.
- McCaffrey, Edward Francis  
56 Paris Road, New Hartford, N. Y.
- Maggio, Michael  
14 First Avenue, New York, N. Y.
- Malkin, Martin  
535 West 162d Street, New York, N. Y.
- Maller, Julius  
704 Howard Avenue, Brooklyn, N. Y.
- Marchese, Justin Robert  
3461 White Plains Road, New York, N. Y.
- Marcus, Fred  
1389 Bronx River Avenue, New York, N. Y.
- Mariani, Yolanda  
3350 White Plains Avenue, New York, N. Y.
- Marturano, Philip Samuel  
856 West Domenick Street, Rome, N. Y.
- Mazlish, Abraham  
137a DeKalb Avenue, Jersey City, N. J.
- Messina, Joseph  
1314 Second Avenue, New York, N. Y.
- Milkowitz, Morris  
195 South 4th Street, Brooklyn, N. Y.
- Miller, Alfred  
327 Victory Boulevard, Staten Island, N. Y.
- Mintzer, Nathan  
130-01 109th Avenue, Richmond Hill, N. Y.
- Mitchell, Harry  
112 West 76th Street, New York, N. Y.
- Mitchell, Walter Lawrence  
34 Ashton Street, Charleston, S. C.
- Moskoff, Joseph William  
277 West 117th Street, New York, N. Y.
- Murray, William Augustus  
25 High Street, Cold Spring, N. Y.
- Ostrofsky, Isidore  
323 Alabama Avenue, Brooklyn, N. Y.
- Paoessa, V. William  
7 Van Ranst Place, Mamaroneck, N. Y.

- Petak, Michael  
650 47th Street, Brooklyn, N. Y.
- Pink, Abraham  
252 Highland Avenue, Passaic, N. J.
- Pitocchi, Caroline Ellen  
1316 Bay Ridge Parkway, Brooklyn, N. Y.
- Pollack, Harold  
1640 University Avenue, New York, N. Y.
- Price, Sybil Louise  
2484 Seventh Avenue, New York, N. Y.
- Rabiner, Abraham  
127 South Mill Street, Liberty, N. Y.
- Raich, George  
83-46 118th Street, Kew Gardens, N. Y.
- Raskin, Nathan  
1523 Washington Avenue, New York, N. Y.
- Rauch, Irving Herbert  
46-48 Avenue B, New York, N. Y.
- Reich, Leo Lewis  
2005 Vyse Avenue, New York, N. Y.
- Reid, Norman Frederick  
436 East 69th Street, New York, N. Y.
- Ricciardi, Michael Raymond  
120 Lake Street, Jersey City, N. J.
- Rose, Herbert Hyman  
222 Main Street, Highland Falls, N. Y.
- Rosenblatt, Raphael  
1785 Prospect Avenue, New York, N. Y.
- Rosenfeld, Julius Lawrence  
178 Hooper Street, Brooklyn, N. Y.
- Rothaus, Rita  
369 East 169th Street, New York, N. Y.
- Santoriello, Nicholas Michael  
184 Richardson Street, Brooklyn, N. Y.
- Sarner, Samuel  
92 Ridge Street, New York, N. Y.
- Schneller, Michael  
408 East 158th Street, New York, N. Y.
- Scholefield, Lewis James  
23 Ralph Street, Beacon, N. Y.
- Selvin, Murray Louis  
36 Englewood Avenue, West Englewood, N. J.
- Shahon, Alexander  
1012 Voorhies Avenue, Brooklyn, N. Y.
- Siegel, Abraham Jacob  
512 East Taylor Street, Syracuse, N. Y.
- Silverman, Sidney  
249 Barrett Street, Brooklyn, N. Y.
- Simon, Seymour Charles  
12 Cooper Square, New York, N. Y.
- Spanuello, Charles  
2887 Harrington Avenue, New York, N. Y.
- Spiegel, Martin  
79 Broadway, Kingston, N. Y.
- Stamatov, (Mrs.) Stefana Mednikarova  
2899 Kingsbridge Terrace, New York, N. Y.
- Steele, Kent Brown Pierrepont Manor, N. Y.
- Stillman, David  
318 East 8th Street, New York, N. Y.
- Strassfeld, Solomon  
96 Willett Street, New York, N. Y.
- Stuller, David Davis  
13 Grove Street, South Norwalk, Conn.
- Taylor, Harold Louis  
62 Line Street, Charleston, S. C.
- Tropia, Joseph  
245 East 39th Street, New York, N. Y.
- Truyol, Josefina  
Calimano Street, Guayama, Porto Rico
- Truyol, Rafaela  
Calimano Street, Guayama, Porto Rico
- Valenti, Anthony Sauro  
134 Grove Street, Brooklyn, N. Y.
- Vernava, Anthony  
134 White Street, New York, N. Y.
- Vinci, Thomas Lawrence  
Highland Road, East Port Chester, Conn.
- Wahls, Henry Affel  
8843 186th Street, Hollis, N. Y.
- Wait, Gretchen  
216 Grand Street, Newburgh, N. Y.
- Walter, Henry Carl  
8300 Talbot Street, Kew Gardens, N. Y.
- Weinstein, Louis  
62 East 7th Street, New York, N. Y.
- Weissman, Theodore  
227 East Chester Street, Long Beach, N. Y.
- Wexler, Jacob  
431 Strafford Avenue, Syracuse, N. Y.
- Whitney, Edward Harold  
172 Lander Street, Newburgh, N. Y.
- Wolfe, Solomon  
295 South 2d Street, Brooklyn, N. Y.
- Wolinsky, William Jack  
57 Suffolk Street, New York, N. Y.
- Wollner, Julius  
60 West 58th Street, New York, N. Y.
- Yawata, Richard Ichitaro  
1505 Kewalo Street, Honolulu, Hawaii
- Zauderer, Isidor  
501 West 124th Street, New York, N. Y.
- Zito, Donato Joseph  
262 Union Avenue, New Rochelle, N. Y.
- (147)

## ACADEMIC CALENDAR

1931

- June 8-Aug. 8. Summer Laboratory Courses.  
Sept. 2-4. Registration for first year candidates.  
8-11. Supplementary Examinations.  
16-17. Registration for second, third, and fourth year candidates.  
21. Monday, One Hundred and Second Session begins. Second, Third and Fourth Year Classes assemble 9 a. m.  
22. Tuesday, First Year Classes assemble 9 a. m.  
Oct. 5. Monday, Evening Courses start.  
Nov. 3. Tuesday, Election Day, Holiday.  
26. Thursday, to November 28, Saturday, inclusive. Thanksgiving Holidays.  
Dec. 21. Monday, to

1932

- Jan. 2. Saturday, inclusive, Christmas Holidays.  
4. Monday, Sessions resumed.  
18-23. Mid-Year Examinations.  
18. Monday, Second Semester, Evening Courses start.  
Feb. 12. Friday, Lincoln's Birthday, Holiday.  
22. Monday, Washington's Birthday, Holiday.  
March 25-26. Spring Holiday.  
Apr. 4. Monday, All classes. Last day for applying for final examinations with payment of fee.  
May 6. Friday, Evening Courses close.  
9-16. Final Examinations, First, Second, and Third year College and University Classes.  
16-18. Final Examinations, Senior University Class.  
25. Wednesday, First and Second Year Exercises (Alumni Day).  
26. Thursday, College Commencement.  
31. Tuesday, University Commencement.

## SCHEDULE OF EXAMINATIONS

### *Supplementary Examinations*

#### FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

1931

- Sept. 8. Tuesday, 9-12, *Phr. 1-2*, Pharmacy.  
9. Wednesday, 9-12, *Chm. 3-4*, Chemistry.  
Wednesday, 2-5, *Chm. 1-2*, Physics.

- Sept. 10. Thursday, 9-12, *M.M.* 1-2, Botany.  
 Thursday, 9-12, *M.M.* 5-6, Posology.  
 Thursday, 2-5, *Eng.* 1-2, English.  
 Thursday, 2-5, *Hist.* 3-4, American government.

## SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- Sept. 8. Tuesday, 9-12, *Phr.* 51-52, Theoretical pharmacy.  
 Tuesday, 2-5, *Phr.* 61-62, Commercial pharmacy.  
 9. Wednesday, 9-12, *Chm.* 55-56, Inorganic chemistry.  
 Wednesday, 2-5, *Chm.* 51-52, Physics.  
 10. Thursday, 9-12, *M.M.* 57-58, Physiology.  
 Thursday, 9-12, *M.M.* 59-60, Microbiology.  
 Thursday, 2-5, *Ger.* 51-52, German.

## THIRD YEAR COLLEGE AND UNIVERSITY CLASSES

- Sept. 8. Tuesday, 9-12, *Phr.* 101-102, Theoretical pharmacy.  
 Tuesday, 2-5, *Phr.* 107-108, Dispensing pharmacy.  
 Tuesday, 2-5, *Math.* 101-102, Mathematics.  
 9. Wednesday, 9-12, *Chm.* 103-104, Organic chemistry.  
 Wednesday, 2-5, *Chm.* 101-102, Theories of chemistry.  
 Wednesday, 2-5, *Chm.* 107-108, Newer remedies.  
 10. Thursday, 9-12, *M.M.* 101-102, Materia medica.  
 Thursday, 2-5, *M.M.* 103-104, Toxicology.  
 Thursday, 2-5, *M.M.* 109-110, Pharmacal sundries.  
 11. Friday, 9-12, *Phr.* 109-110, Jurisprudence and business pharmacy.

## FOURTH YEAR UNIVERSITY CLASS

- Sept. 8. Tuesday, 2-5, *Phr.* 151-152, Advanced pharmacy.  
 9. Wednesday, 9-12, *Chm.* 153-154, Food analysis and toxicology.  
 Wednesday, 2-5, *Chm.* 151-152, Inorganic quantitative analysis.  
 Wednesday, 2-5, *Chm.* 155-156, Biological chemistry.  
 10. Thursday, 9-12, *M.M.* 155-156, Physiology.

*Mid-Year Examinations and Tests*

1932

- Jan. 18-23. A schedule of these examinations and tests will be posted on the bulletin boards. Students not in residence should consult the Registrar for information regarding them.

*Final Examinations*

## FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

1932

- May 10. Tuesday, 9-12, *M.M.* 1-2, Botany.  
 Tuesday, 9-12, *M.M.* 5-6, Posology.

- May 10 Tuesday, 9-12, *M.M.* 7-8, Posology.  
 Tuesday, 2-5, *Chm.* 3-4, Inorganic chemistry.
12. Thursday, 9-12, *Chm.* 1-2, Physics.  
 Thursday, 2-5, *Phr.* 1-2, Pharmacy.
14. Saturday, 9-12, *Eng.* 1-2, English.  
 Saturday, 9-12, *Hist.* 3-4, American government.

## SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- May 9. Monday, 9-12, *Phr.* 51-52, Theoretical pharmacy.  
 Monday, 2-5, *M.M.* 57-58, Physiology.  
 Monday, 2-5, *M.M.* 59-60, Microbiology.
11. Wednesday, 9-12, *Chm.* 55-56, Inorganic chemistry.  
 Wednesday, 2-5, *Chm.* 51-52, Physics.
12. Thursday, 9-12, *Ger.* 51-52, German.
13. Friday, 9-12, *Phr.* 61-62, Commercial pharmacy.  
 Friday, 2-5, *Phr.* 53-54, Pharmaceutical Latin.

## THIRD YEAR COLLEGE AND UNIVERSITY CLASSES

- May 9. Monday, 9-12, *Chm.* 103-104, Organic chemistry.  
 Monday, 2-5, *Chm.* 107-108, Newer remedies.
10. Tuesday, 9-12, *Chm.* 101-102, Theories of chemistry.  
 Tuesday, 2-5, *Math.* 101-102, Mathematics.
11. Wednesday, 9-12, *Phr.* 101-102, Theoretical pharmacy.  
 Wednesday, 2-5, *Phr.* 109-110, Jurisprudence and business pharmacy.
13. Friday, 9-12, *M.M.* 101-102, Materia medica.  
 Friday, 2-5, *M.M.* 103-104, Toxicology.  
 Friday, 2-5, *M.M.* 109-110, Pharmacal sundries.
16. Monday, 9-12, *Phr.* 107-108, Dispensing pharmacy.

## FOURTH YEAR UNIVERSITY CLASS

- May 16. Monday, 9-12, *Phr.* 151-152, Pharmacy.  
 Monday, 1-4, *Chm.* 151-152, Inorganic quantitative analysis.
17. Tuesday, 9-12, *Chm.* 153-154, Food analysis and toxicology.
18. Wednesday, 9-5, *Chm.* 155-156, Biological chemistry.  
 Wednesday, 9-5, *M.M.* 155-156, Physiology.



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# Columbia University

## BULLETIN OF INFORMATION

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Thirty-second Series, No. 44

July 30, 1932

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ANNOUNCEMENT OF THE

### COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

FOR THE WINTER AND SPRING SESSIONS

1932-1933



113-119 WEST 68TH STREET  
NEW YORK

# Columbia University Bulletin of Information

Thirty-second Series, No. 44

July 30, 1932

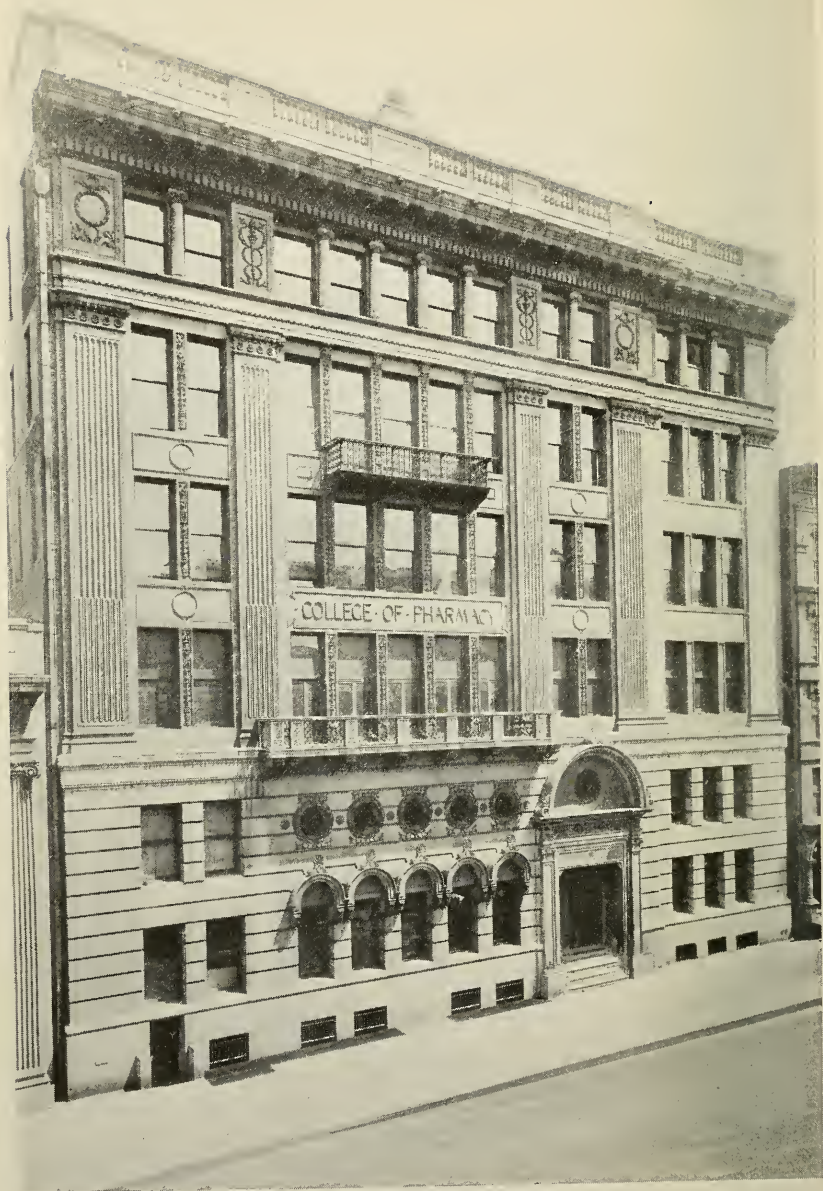
Issued weekly at Columbia University, Morningside Heights, New York, N. Y. Entered as second-class matter August 10, 1918, at the Post Office at New York, N. Y., under the Act of August 24, 1912. Acceptance for mailing at a special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized. These include:

1. Reports of the President and Treasurer to the Trustees.
2. The Catalogue Number, the Directory Number and the Announcements of the several Colleges and Schools, and of certain Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.

C. U. P.—15,000—1932

For special or more detailed information than is given in this Announcement, applicants are requested to address the Registrar of the College, 113 West 68th Street. His office hours are as follows: From September 1, 1932 to June 1, 1933, daily except Saturdays, 9 a. m. to 5 p. m.; Saturdays, 9 a. m. to 12 m. Other portions of the year, daily (except Saturdays), 9:30 a. m. to 4 p. m.; Saturdays, 9:30 a. m. to 12 m.





COLLEGE OF PHARMACY OF THE CITY OF NEW YORK  
113-119 WEST SIXTY-EIGHTH STREET

# Columbia University

in the City of New York

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ANNOUNCEMENT OF THE

## COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

FOR THE WINTER AND SPRING SESSIONS

1932-1933



113-119 WEST 68TH STREET  
NEW YORK

This college reserves the right to make such changes in the curriculum, schedule, calendar, and regulations appearing in this Announcement, as circumstances may require.

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# 1932

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
<b>Jan.</b>	..	3	4	5	6	7	8	<b>May</b>	1	2	3	4	5	6	7	<b>Sept.</b>	4	5	6	7	8	9	10	11
	10	11	12	13	14	15	16		8	9	10	11	12	13	14		11	12	13	14	15	16	17	18
	17	18	19	20	21	22	23		15	16	17	18	19	20	21		18	19	20	21	22	23	24	25
	24	25	26	27	28	29	30		22	23	24	25	26	27	28		25	26	27	28	29	30	..	..
	31	..	..	..	..	..	..		29	30	31	..	..	..	..		..	..	..	..	..	..	..	..
<b>Feb.</b>	..	1	2	3	4	5	6	<b>June</b>	5	6	7	8	9	10	11	<b>Oct.</b>	2	3	4	5	6	7	8	
	7	8	9	10	11	12	13		12	13	14	15	16	17	18		9	10	11	12	13	14	15	
	14	15	16	17	18	19	20		19	20	21	22	23	24	25		16	17	18	19	20	21	22	
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	28	29	..	..	..	..	..		..	..	..	..	..	..	..		30	31	..	..	..	..	..	..
<b>March</b>	..	..	1	2	3	4	5	<b>July</b>	3	4	5	6	7	8	9	<b>Nov.</b>	..	1	2	3	4	5	6	
	6	7	8	9	10	11	12		10	11	12	13	14	15	16		6	7	8	9	10	11	12	
	13	14	15	16	17	18	19		17	18	19	20	21	22	23		13	14	15	16	17	18	19	
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	27	28	29	30	31	..	..		31	..	..	..	..	..	..		27	28	29	30	..	..	..	..
<b>April</b>	3	4	5	6	7	8	9	<b>Aug.</b>	7	8	9	10	11	12	13	<b>Dec.</b>	..	..	..	..	..	..	..	
	10	11	12	13	14	15	16		14	15	16	17	18	19	20		4	5	6	7	8	9	10	
	17	18	19	20	21	22	23		21	22	23	24	25	26	27		11	12	13	14	15	16	17	
	24	25	26	27	28	29	30		28	29	30	31	..	..	..		18	19	20	21	22	23	24	
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# 1933

<b>Jan.</b>	1	2	3	4	5	6	7	<b>May</b>	..	1	2	3	4	5	6	<b>Sept.</b>	..	..	..	..	..	1	2	
	8	9	10	11	12	13	14		7	8	9	10	11	12	13		3	4	5	6	7	8	9	
	15	16	17	18	19	20	21		14	15	16	17	18	19	20		10	11	12	13	14	15	16	
	22	23	24	25	26	27	28		21	22	23	24	25	26	27		17	18	19	20	21	22	23	
	29	30	31	..	..	..	..		28	29	30	31	..	..	..		24	25	26	27	28	29	30	
	..	..	1	2	3	4	5	<b>June</b>	..	..	1	2	3	4	<b>Oct.</b>	1	2	3	4	5	6	7	8	
<b>Feb.</b>	5	6	7	8	9	10	11		4	5	6	7	8	9	10		8	9	10	11	12	13	14	
	12	13	14	15	16	17	18		11	12	13	14	15	16	17		15	16	17	18	19	20	21	
	19	20	21	22	23	24	25		18	19	20	21	22	23	24		22	23	24	25	26	27	28	
	26	27	28	..	..	..	..		25	26	27	28	29	30	..		29	30	31	..	..	..	..	
<b>March</b>	..	..	1	2	3	4	5	<b>July</b>	..	..	..	..	..	1	<b>Nov.</b>	..	..	..	..	..	1	2	3	4
	5	6	7	8	9	10	11		2	3	4	5	6	7	8		5	6	7	8	9	10	11	
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<b>April</b>	2	3	4	5	6	7	8		6	7	8	9	10	11	12		3	4	5	6	7	8	9	
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# 1934

<b>Jan.</b>	..	1	2	3	4	5	6	<b>May</b>	6	7	8	9	10	11	12	<b>Sept.</b>	..	2	3	4	5	6	7	8	
	14	15	16	17	18	19	20		13	14	15	16	17	18	19		9	10	11	12	13	14	15		
	21	22	23	24	25	26	27		20	21	22	23	24	25	26		16	17	18	19	20	21	22		
	28	29	30	31	..	..	..		27	28	29	30	31	..	..		23	24	25	26	27	28	29		
	..	..	..	..	..	..	..	<b>June</b>	..	..	..	..	..	1	2	<b>Oct.</b>	30	..	1	2	3	4	5	6	
<b>Feb.</b>	..	..	..	1	2	3	4		..	..	..	..	..	7	8		..	7	8	9	10	11	12	13	
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<b>March</b>	..	..	..	1	2	3	4	<b>July</b>	1	2	3	4	5	6	7	<b>Nov.</b>	..	..	..	..	1	2	3	4	
	4	5	6	7	8	9	10		8	9	10	11	12	13	14		4	5	6	7	8	9	10		
	11	12	13	14	15	16	17		15	16	17	18	19	20	21		11	12	13	14	15	16	17		
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	..	..	..	..	..	..	..	<b>Aug.</b>	..	..	1	2	3	4	<b>Dec.</b>	..	..	..	..	..	..	..	1	2	3
<b>April</b>	8	9	10	11	12	13	14		5	6	7	8	9	10	11		2	3	4	5	6	7	8		
	15	16	17	18	19	20	21		12	13	14	15	16	17	18		9	10	11	12	13	14	15		
	22	23	24	25	26	27	28		19	20	21	22	23	24	25		16	17	18	19	20	21	22		
	29	30	..	..	..	..	..		26	27	28	29	30	31	..		23	24	25	26	27	28	29		
	..	..	..	..	..	..	..		..	..	..	..	..	..	..		30	31	..	..	..	..	..	..	



## OFFICERS AND TRUSTEES

### OFFICERS

NICHOLAS MURRAY BUTLER.....	<i>President</i>
WILLIAM J. SCHIEFFELIN.....	<i>Honorary President</i>
HENRY C. LOVIS.....	<i>First Vice-President</i>
EDWARD PLAUT.....	<i>Second Vice-President</i>
V. CHAPIN DAGGETT.....	<i>Third Vice-President</i>
CLARENCE O. BIGELOW.....	<i>Treasurer</i>
CHARLES W. HOLTON.....	<i>Secretary</i>
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# FACULTY OF THE COLLEGE OF PHARMACY

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HENRY V. ARNY, Ph.M., Ph.D.....	<i>Dean</i>
CURT P. WIMMER, A.M., Ph.M., Phar.D.....	<i>Associate Dean</i>
GEORGE C. DIEKMAN, Ph.G., M.D.....	<i>Secretary</i>

---

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GEORGE C. DIEKMAN, Ph.G., M.D.....	<i>Professor Emeritus of Pharmacy</i>
HENRY H. RUSBY, M.D., Ph.M., Sc.D.....	<i>Professor Emeritus of Materia Medica</i>
HENRY V. ARNY, Ph.D., Ph.M.....	<i>Professor of Chemistry</i>
CURT P. WIMMER, A.M., Ph.M., Phar.D.....	<i>Professor of Pharmacy</i>
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LEWIS N. BROWN, Phar.D.....	<i>Associate Professor of Pharmacy</i>
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FANCHON HART, Ph.G., A.M.....	<i>Associate Professor of Materia Medica</i>
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HARRY TAUB, B.S. (Phar.), A.M.....	<i>Assistant Professor of Materia Medica</i>
FREDERICK D. LASCOFF, Ph.G., A.B.....	<i>Assistant Professor of Pharmacy in Charge of Commercial Pharmacy</i>
JACOB S. DORFMAN, Ph.G., A.M.....	<i>Assistant Professor of Pharmacy</i>
ABRAHAM TAUB, B.S. (Phar.), A.M.....	<i>Assistant Professor of Physics and Chemistry</i>
LESLIE JAYNE, B.S. (Phar.).....	<i>Assistant Professor of Chemistry</i>

## OTHER OFFICERS OF THE UNIVERSITY GIVING INSTRUCTION IN THE COLLEGE OF PHARMACY

MAXWELL KARSHAN, Ph.D.....	<i>Associate Professor of Biological Chemistry</i>
ALEITA HOPPING, Ph.D.....	<i>Assistant Professor of Physiology</i>

## INSTRUCTORS

SAUL KAYE, Ph.G.....	<i>Instructor in Pharmacy</i>
FRANK POKORNY, Ph.Ch.....	<i>Instructor in Materia Medica</i>
JOSEPH E. ADAMS, B.S. (Phar.), A.M.....	<i>Instructor in Materia Medica</i>
WILLIAM KEENAN, Ph.G.....	<i>Instructor in Materia Medica</i>
JOSEPH P. MIALE, Ph.Ch.....	<i>Instructor in Pharmacy</i>
SAMUEL LIBERMAN, B.S. (Phar.).....	<i>Instructor in Chemistry</i>
VICTOR LEWITUS, Ph.G., A.M.....	<i>Instructor in Materia Medica</i>
RUDOLF HAUCK, B.S. (Phar.), A.M.....	<i>Instructor in Pharmacy</i>
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CHARLES H. SOREN, Ph.G., B.S.....	<i>Instructor in Chemistry</i>
EDWARD ANZELMI, Ph.Ch.....	<i>Instructor in Chemistry</i>
MARGUERITE C. DIMLER, B.S. (Phar.).....	<i>Instructor in Chemistry</i>
DOMINICK FANELLI, Ph.Ch., A.M.....	<i>Instructor in Pharmacy</i>
HORACE T. F. GIVENS, B.S. (Phar.).....	<i>Instructor in Chemistry</i>
JOSEPH JACKSON, Ph.G., B.S.....	<i>Instructor in Chemistry</i>

## LECTURERS

ISIDORE NEUSTAEDTER, Phar.D., LL.B.....	<i>Lecturer in Pharmaceutical Jurisprudence</i>
GEORGE D. MCJIMSEY, A.M.....	<i>Lecturer in English</i>
ARTHUR H. INGENHUETT, A.M.....	<i>Lecturer in German</i>
.....	<i>Lecturer in History</i>

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ADAM LEROY JONES, Ph.D., Litt.D.....	<i>Director of University Admissions</i>
CHARLES C. WILLIAMSON, Ph.D., Litt.D.....	<i>Director of University Libraries</i>
ROGER HOWSON, M.A.....	<i>Librarian</i>
DAVID M. UPDIKE, M.E.....	<i>Superintendent of Buildings and Grounds</i>
CHARLES W. BALLARD, Ph.Ch., A.M., Ph.D.....	<i>Librarian of the College of Pharmacy</i>
EDWARD J. GRANT, A.B.....	<i>Registrar of the University</i>
CHARLES S. DANIELSON.....	<i>Bursar of the University</i>
HENRY LEE NORRIS, M.E.....	<i>Director of Works</i>
CLARENCE E. LOVEJOY, A.B.....	<i>Alumni Secretary</i>

## COLUMBIA UNIVERSITY

Columbia University was founded in 1754 as King's College by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws and Doctor of Law (Doctor Juris); the College of Physicians and Surgeons with courses leading to the degrees of Doctor of Medicine and Master of Science; the School of Engineering, with courses leading to the Bachelor of Science degree, the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degree of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degree of Bachelor of Science; the School of Business, with courses leading to the degrees of Bachelor and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degree of Doctor of Dental Surgery; the School of Library Service; with courses leading to the degrees of Bachelor of Science and Master of Science, Seth Low Junior College offering two and three years of collegiate work in preparation for admission to professional schools or to more advanced work in liberal arts and sciences in Columbia University; the non-professional Graduate Faculties of Political Science, Philosophy, and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy.

In addition to these schools and faculties, the University includes the independent corporations of Barnard College, the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College, including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science; the College of Pharmacy of the City of New York, with courses leading to the degrees of Bachelor of Science and Doctor of Pharmacy; St. Stephen's College, Annandale, New York, an undergraduate college for men with courses leading to the degree of Bachelor of Arts; and the Union Theological Seminary, whose faculty conducts certain University work leading to the degree of Master of Arts.

The University maintains three sessions during the year: The Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education and to take courses toward a diploma or an academic degree. Home Study courses are also offered to persons who are unable to take work in residence.

## ADMISSION

A student accepted and registered by the proper authorities as having fulfilled the preliminary qualifications for candidacy for a degree, certificate of proficiency, or diploma, is enrolled as a matriculated student of the University. Acceptance of a candidate is based on grounds of character and health as well as on fulfillment of academic requirements. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

A student not enrolled as a matriculated student may enter the University as a non-matriculated student, and be permitted to attend such courses of instruction as he is qualified to take, but not as a candidate for a degree, certificate of proficiency, or diploma. Such students are expected to conform to the same standards of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive a formal statement of the satisfactory completion of any course.

In the Announcement of each school will be found the specific conditions governing admission to courses of instruction and to candidacy for a degree.

The admission, continuance upon the rolls, and graduation of any student, is subject to the full disciplinary power of the University authorities, as prescribed by the Statutes of the University.

No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the consent of the appropriate Dean or Director.

## WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar immediately.

The Dean or Director of the school or faculty concerned may, for reasons of weight, grant a leave of absence to a student in good standing.

## ANNOUNCEMENTS

The Announcements of each college or school, of the Summer Session, of University Extension, and of the several divisions under which the departments of instruction are grouped, may be obtained without charge from the Secretary of the University.

The Announcement of each school contains a schedule of fees and expenses for the courses in that school.

## LIBRARY

The Library of the University contains about 1,305,000 volumes, exclusive of unbound pamphlets. The various departments of instruction have also special

libraries in connection with their lecture rooms and laboratories. The Avery Architectural Library, the law library, the Ella Weed Library of Barnard College, Teachers College library, and the libraries of the College of Physicians and Surgeons, the School of Dental and Oral Surgery, and the College of Pharmacy, are all available to students of the University.

#### PUBLIC LIBRARIES

Students may use any of the public libraries of Greater New York. The central library building of the New York Public Library at Fifth Avenue and 42d Street, houses one of the great reference libraries of the country, containing nearly 2,000,000 volumes and including much material not found in the University Library. Books in the reference department of that library may be used only within the building. Because of crowded conditions students are expected to do their work in the University libraries. However, if material needed by a graduate student is not in the University Library, he should take a card from his departmental librarian to the Public Library. Books in the central circulation branch (42d Street entrance) and in other branches may be borrowed for home use by students who obtain a Public Library card. A sub-branch of the Public Library is maintained in Room 108A of the Columbia University Library. Other branches in the vicinity of the University are: West 115th Street, near Seventh Avenue; West 100th Street, near Amsterdam Avenue; and George Bruce Branch, 518 West 125th Street.

#### RESIDENCE HALLS

The Residence Halls provide easy access to libraries and laboratories, comfortable accommodations in an environment conducive to academic work, and serve as a center for campus life.

There are four Residence Halls for men on South Quadrangle: Furnald with 282 rooms Hartley with 300, John Jay with 476 and restaurants adequate for all men students, and Livingston with 300 rooms. Johnson Hall, on East Quadrangle, with accommodations of room and board for 360 students in the graduate and professional schools is a Residence Hall for women.

All the University Residence Halls, for both men and women, are under the supervision of advisory committees appointed by the President, consisting of University officers and assisted by committees made up of residents in the Halls.

Copies of Residence Halls Announcements giving floor plans and dormitory regulations together with application blanks will be furnished on request by the Secretary of the University, 213 Library.

#### INTERNATIONAL HOUSE

International House, 500 Riverside Drive, the home of the Inter-Collegiate Cosmopolitan Club, is maintained for men and women students from foreign lands and a limited number of American students. It accommodates 175 women and 325 men. It contains attractive restaurants and social rooms. Inquiries should be addressed to the Committee on Admissions, International House, 500 Riverside Drive.

## THE RESIDENCE BUREAU

Columbia University maintains a Residence Bureau to protect the students' interests and to assist students in finding the best accommodations obtainable in the University neighborhood. There is no charge made for this service. The Bureau will furnish upon request addresses of rooms which have been inspected. The University is in no way responsible for any private lodging house. Students desiring information regarding rooms outside of University Halls should address the Residence Bureau, Room M, Earl Hall, Columbia University.

## KING'S CROWN HOTEL

The King's Crown Hotel, located at 420 West 116th Street in close proximity to the University, provides accommodations at reasonable rates, available for relatives and guests of members of the University community.

## DINING FACILITIES

The University maintains a dining room for women students in Johnson Hall and a dining room and a grillroom for all men students in John Jay Hall. In addition, the University maintains the following dining rooms (cafeteria service): the Commons (men and women), University Hall; Barnard Hall Lunch Room (women), Barnard Hall; Teachers College Cafeteria (men and women), Grace Dodge Hall, 121st Street. All these dining rooms are under expert supervision and furnish wholesome food at moderate rates.

The Columbia University Press Bookstore, located in the basement of Journalism, conducts a soda fountain where light luncheons are served.

## EARL HALL

Earl Hall was given to Columbia University by the late William Earl Dodge for the religious and social activities of the students. On the main floor, reached by the Campus entrance, are the offices of the Director of Earl Hall (Men's Residence Halls Office); the Residence Bureau; the Secretary of Appointments; and the Meeting Room. On the upper floor are the offices of the Chaplain of the University and his staff, and also an auditorium seating 400 people which is used by musical and dramatic organizations. The lower floor entrance from Broadway is occupied by the offices of the University Medical Officer.

## GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the University Medical Officer. On the basis of this examination, advice is given as to the kind and amount of exercise best adapted to his needs. Barnard Hall, of Barnard College, and Thompson Hall, of Teachers College, are thoroughly equipped with physical training facilities for women students.



## MEDICAL SERVICE

The University Medical Officer has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. The University Medical Officer, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists, and nursing care, will receive such information upon applying at the office of the University Medical Officer.

# THE COLLEGE OF PHARMACY

## IMPORTANT ANNOUNCEMENT

### STATE BOARD REQUIREMENTS

It has been agreed among all the important state boards of pharmacy in the United States, with the exception of New York, that the degree of Graduate in Pharmacy, awarded for a course of less than four years will not be accepted from graduates matriculating after January 1, 1932. In certain of the states there is an additional demand that the college instruction be spread over five days of the week. It follows that students matriculating in the pharmacy schools of this state must pursue some other course than the Ph.G. course of three years, if they wish their diplomas to be recognized in other states. Our University Course of four years leading to the degree of Bachelor of Science in Pharmacy (see page 17) is more than equivalent to the four-year course required by other states. This course provides 3808 hours of instruction during four years of 32 weeks each, the work occupying five days of each week.

### GENERAL STATEMENT

The one hundred and third annual session of the College of Pharmacy, open to both men and women, will begin on Monday, September 19, 1932.

### THE COLLEGE BUILDING

The location of the College is at one of the most readily accessible points in the city. Within two blocks are stations of the elevated and underground railroads, and the Broadway, Columbus, and Amsterdam Avenue lines connect with nearly all surface lines in the city. The central buildings of the University are reached within fifteen minutes from the door of the College.

The College building was erected in 1894, after a study of the principal buildings of the kind in this country and abroad. So great has been the increase in the applications for admission that it was found necessary in 1923 to provide greater accommodations in the form of an additional connecting building.

In its planning, two principal objects were kept in view: first, provision for a large increase in the membership of the first and second year classes; second, greatly increased and improved facilities for the work of the higher classes. In connection with the latter, extensive provision has been made for research work, by both Faculty and special students. Our library has also been greatly improved, the entire lower floor of the new building having been reserved for its accommodation.

### THE LIBRARY

The library is in charge, during College hours, of a trained librarian, who is ready to offer any assistance desired by readers. It contains the important works of reference required in the different departments of instruction, and for

the various branches of science taught in the College of Pharmacy. It covers, indeed, a very broad field in all departments of chemistry, botany, and pharmacy.

Should the resources of the College be insufficient for some special purpose, the student has recourse to such great library storehouses as the general Library of Columbia University on Morningside Heights, libraries of the College of Physicians and Surgeons, School of Dental and Oral Surgery, the New York Academy of Medicine, the New York Botanical Garden, and others, and he will also be able, by special arrangement, to borrow from the great library of the Surgeon-General's office at Washington.

The library contains an extensive series of periodicals on chemistry, pharmacy, and botany, with their allied branches. All important journals relating to the work of the College are regularly received.

During regular College hours the library is accessible not only to officers and students of the College, but also to the pharmacists of the city. Under certain regulations, books may be borrowed for outside use, but for obvious reasons important works of reference and unbound periodicals are not loaned. Library copies of the textbooks in use by the College may not be removed from the library.

#### INFORMATION BUREAU

The information bureau conducted by the library staff is designed to furnish pharmacists with data required in emergencies and not available in the library of the average drug store. During the past years of operation the Bureau has met with gratifying success, and it is steadily growing in popularity.

The following paragraphs explain the methods employed in conducting the service:

1. Telephone inquiries will be answered without charge. Residents of Greater New York or vicinity wishing to inquire about some pharmaceutical problem will call up the information bureau, Trafalgar 7-1733, and will receive information immediately if it is accessible.

2. Non-residents will have their problems answered by mail if they enclose a self-addressed stamped envelope.

3. Problems requiring extended research will be handled for a fee as moderate as consistent with high-grade service.

4. Translations of articles from foreign languages, either in full or in abstract, as well as transcripts of papers appearing in English or American pharmaceutical, chemical, or botanical periodicals will be prepared for those desiring to pay for such service.

5. As in the past, all visitors to the library, desiring to do their own research work, will be given courteous attention.

#### EMPLOYMENT FOR STUDENTS

The Registrar, so far as possible, assists students to secure such positions, in and about the city, as will not prevent them from regularly attending the College exercises.

Any student wishing to secure employment should, upon entering the College, communicate with the Registrar.

Within easy reach of the College are some three thousand pharmacies, where students who have had some experience in pharmacy may obtain employment with salary sufficient to pay the whole or a large part of their expenses while attending College.

#### APPLICATION FOR ADMISSION

Every candidate for admission to the College of Pharmacy is required to file with the Registrar of the College a personal application and a transcript of his high school record, blank forms for which can be had upon application. He is also required to file an approval of his application for a pharmacy student qualifying certificate *before he can be accepted*, and he must secure the apprentice license before his matriculation can be considered complete.

#### NEW YORK STATE QUALIFYING CERTIFICATE

To be entitled to a pharmacy student qualifying certificate, the applicant must be at least seventeen years of age, and must have been graduated from an accredited four-year high school course, or have covered courses acceptable to the Department of Education as a full equivalent thereof. A high school or other secondary school course of study will not be considered acceptable unless the applicant has received the school diploma, and unless his or her record includes:

English, four years.

Science, two years.

Mathematics, two years.

Foreign language, two years.

History, one year.

Physiology, one-half year (unless the two years of science include biology or general science).

Civics, one-half year.

Sufficient electives to make up a full four-year course aggregating 15 units.

The fulfillment of these requirements must be officially guaranteed by a qualifying certificate issued by the New York State Department of Education. If the applicant is entitled to receive the certificate, he will be so notified by letter; which letter should be presented to the Registrar of the College of Pharmacy. Blank forms for making application for the certificate may be secured either from the Registrar's office or from the Department of Education at Albany.

#### APPRENTICE LICENSE

The apprentice license should be applied for when the candidate commences his experience in a pharmacy or drug store. Those who have had no experience before entering the pharmacy school, or whose experience has been in a drug store or pharmacy outside of New York State, will make application for their licenses through the school during the first week of the course, the Registrar acting as "preceptor." Blank forms for making application for the apprentice license may be secured either from the Registrar's office or from the Board of Pharmacy at Albany, N. Y.

## HEALTH CERTIFICATE

All applicants for admission to any of the courses given must present an acceptable certificate of health from the candidate's family physician or from the University Medical Officer. In case of doubt an examination by the University Medical Officer will be required. Appropriate blanks are furnished by the Registrar of the College.

## COURSES OFFERED

Two regular courses of study are offered, known respectively as the College Course and the University Course, and three evening courses in the Departments of *Materia Medica*, Pharmacy, and Chemistry.

## THE COLLEGE COURSE

This course now comprises three full years of professional work, and is designed to fit the graduate for meeting the educational requirements of the State Board. Attention is directed to the first paragraph on page 14, under the heading, "State Board Requirements." The fundamental idea of this increase in time is generally accepted as being that of improving the quality of the work done, rather than of providing a large amount of additional work, this improvement applying particularly to the practical features of the course. The precise object of a course leading to the degree of Graduate in Pharmacy being to prepare such graduates for meeting the conditions of service in a retail pharmacy, the greater portion of the increased time has been assigned to the Department of Pharmacy, and to those features of the work of the other departments which are directly contributory thereto. After a careful study of the requirements, we have concluded that the time officially assigned for this course is insufficient, and we have added 128 hours for laboratory work in commercial and dispensing pharmacy.

Experience has shown the value of the courses in microbiology and pharmaceutical sundries which were introduced in the three-year program. While both of these topics are correlated to *materia medica*, from the teaching standpoint they can be more adequately treated as separate subjects. Through the courtesy of several friends of the College, extensive exhibits of sundries, sick-room supplies, and biological products are gradually being acquired.

## THE UNIVERSITY COURSE

The Department of Health of the City of New York has placed the Bachelor of Science in Pharmacy, graduating from this course, in the position of being eligible to conduct a bacteriological laboratory or to fill similar positions.

The attention of prospective students is directed to the increasing call for graduates of advanced courses, to fill other professional positions. The general application of Federal, state, and municipal food and drug laws is creating a demand for thoroughly trained pharmaceutical inspectors and analysts. The obligations thus imposed upon manufacturers and merchants must result, and are doing so, in compelling them to employ scientifically trained assistants for responsible services which formerly were often left to incompetent and irresponsible em-

ployees. For this field of service the ordinary graduate in pharmacy is wholly unqualified.

To meet these higher requirements, four- and six-year courses of study, leading respectively to the degrees of Bachelor of Science in Pharmacy (B.S. in Phar.), and Doctor of Pharmacy (Phar.D.) have been established.

In response to inquiries frequently received as to the advantages of the University Course over the College Course, the following synopsis has been prepared:

1. To members of the University Class only are open certain of the University privileges.

2. The University Class attends on five days weekly, and the course includes regular work in academic subjects, conducted by instructors approved by the Dean of the Faculty of Columbia College.

3. For the University Class, the College provides a thorough course of laboratory instruction in advanced chemistry, pharmacy, and physics and special courses in microscopy and bacteriology, consisting of both theoretical and laboratory instruction.

4. Our graduate course, leading to the degree of Doctor of Pharmacy, is open open only to graduates of the four-year University Course.

5. Not only is the degree of Bachelor of Science recognized as of higher rank than that of Graduate in Pharmacy, but the four-year course for which it is awarded qualifies its recipients for many lines of pharmaceutical work that are not open to graduates of the College Course.

#### GRADUATE COURSE

This course, leading to the degree of Doctor of Pharmacy, is open to graduates with the baccalaureate degree, conferred by this college or by other schools of pharmacy maintaining equivalent courses of study. The course consists of two full years of study in residence. Thirty hours weekly are occupied in research work in the department representing the major subjects, and three hours weekly in each of the other two departments. For this session, not more than two students will be matriculated in each of the three departments.

### ENTRANCE REQUIREMENTS

#### COLLEGE COURSE

To be eligible for admission, the candidate must be at least seventeen years of age, and must meet the requirements for the pharmacy student qualifying certificate, as outlined on page 16.

#### THE UNIVERSITY COURSE

This course of four full academic years (September to June) leads to graduation with the other departments of the University, and to the degree of Bachelor of Science in Pharmacy, conferred by the University.

The requirements for admission to this course are the same as those for Columbia College. The student must be seventeen years of age, must have graduated

from a high school within or outside of the state of New York that is accredited by the Education Department of this state, and must present a pharmacy student qualifying certificate from the Education Department of this state, as outlined on page 16.

Applications for admission to the 1932-1933 session of the University Course should be filed on or before September 5, 1932.

The evidence of adequate preparation for admission to the University Course in the subjects required on the part of candidates who have not completed a year of college work, *includes both examination and school records.*

The subjects which candidates may offer in fulfillment of these requirements are outlined below. (A "unit" implies the study of a subject for a time equivalent to five hours weekly for one year.)

PREScribed SUBJECTS

All candidates *must* offer:

ENGLISH	{	1 (grammar and composition) . . . . .	2 units
		2 (literature) . . . . .	1 unit
MATHEMATICS	{	ai (algebra to quadratics) . . . . .	1 unit
		aii (quadratics and beyond) . . . . .	1 unit
		c (plane geometry) . . . . .	1 unit

EITHER

(1) Latin<sup>1</sup> . . . . . 4 units

OR

(2) { Latin, Greek, French, German, Spanish or Italian . . . . . 3 }  
 { Physics or chemistry . . . . . 1 } 5 units  
 { History . . . . . 1 }

ELECTIVE SUBJECTS, to make up 15 units . . . . . 4 or 5 units

ELECTIVE SUBJECTS

Group I

The candidate may offer any of the following subjects not included among his prescribed subjects, without other restriction than that to offer an advanced subject will involve offering, either at the same time or earlier, the corresponding elementary subject.

Biology—See Zoölogy	
The English Bible . . . . .	1 unit
Elementary Greek . . . . .	2 or 3 units
Elementary history . . . . .	1 or 2 units
Drawing (freehand or mechanical) . . . . .	1 unit
Music . . . . .	1 unit
Intermediate French . . . . .	1 unit
Intermediate German . . . . .	1 unit
Intermediate Italian . . . . .	1 unit
Intermediate Spanish . . . . .	1 unit

<sup>1</sup> Greek, 3 units, may be substituted for Latin, in which case 6 elective units must be offered.

Advanced French . . . . .	1 unit
Advanced German . . . . .	1 unit
Social science . . . . .	1 unit
Advanced Spanish . . . . .	1 unit
Advanced mathematics (College) . . . . .	½, 1 or 1½ units
And in the case of candidates not offering 4 units in Latin:	
Elementary Latin . . . . .	2 or 3 units

*Group II*

The candidate may offer not more than 4 units in all from the four subjects following:

Elementary French . . . . .	2 units
Elementary German . . . . .	2 units
Elementary Italian . . . . .	2 units
Elementary Spanish . . . . .	2 units

*Group III*

The candidate may offer not more than 3 units in all from the six subjects following:

Botany . . . . .	1 unit
Chemistry . . . . .	1 unit
Physics . . . . .	1 unit
Physiography . . . . .	1 unit
Shopwork . . . . .	1 unit
Zoölogy . . . . .	1 unit

## NEW METHOD

Under the "new method," candidates whose school and character records are entirely satisfactory, may meet the examination requirements by means of a psychological test. The school course must include three units in English, three in mathematics (elementary and intermediate algebra and plane geometry), and at least three units in a foreign language, ancient or modern. It must have been concerned primarily with languages, science, mathematics, and history.

## OLD METHOD

Under the "old method," the examination requirements for admission may be satisfied by any one of the three following means, or any approved combination thereof:

1. By the examinations of the College Entrance Board, held in June of each year at Columbia University and at about 150 other educational centers in the United States and abroad.

2. By the examinations conducted at Columbia University in September of each year, by the Director of University Admissions.

(The examination grades in connection with the above two methods are interpreted in the light of the record which students have made in school.)

3. By the examinations given in the high schools by the Education Depart-



ment of the state of New York to students who have satisfactorily completed certain courses in these high schools. In these examinations, seventy-five per cent will ordinarily be regarded as the lowest passing mark.

For candidates qualifying for admission on the basis of examinations before Columbia University or the College Entrance Board, two methods are open:

*a. Examination in Fifteen Units.* A candidate may offer examinations in fifteen units as evidence of his preparation in secondary school subjects.

*b. Four-Examination Plan.* A candidate who has completed a satisfactory secondary school course with a high degree of proficiency may, by special permission, satisfy the examination requirement by means of "comprehensive examinations" in not less than four subjects including those prescribed for admission.

Candidates entering by the old method are required to take the psychological examination for purposes of record only.

Those contemplating the September, 1932, examinations, must file their applications with the Secretary of Columbia University on or before September 5, 1932. Those who contemplate taking the June, 1933, examinations, must file their applications with the Secretary of the College Entrance Board at 431 West 117th Street, New York, N. Y., early in May. Blank forms of application for either series of examinations may be secured from the respective secretaries.

Every candidate for admission to the University Course should secure a copy of the current Bulletin on Entrance Examinations and Admission which may be had upon application to the Secretary of the University.

#### ADMISSION TO ADVANCED STANDING

Candidates may be admitted to advanced standing only upon a satisfactory record from their school of previous residence. Provided they are eligible for the pharmacy student qualifying certificate required by the New York State Department of Education, candidates who have completed, without condition, corresponding courses in a pharmacy school registered by the State Education Department, are eligible for admission to the second, third, or fourth years, respectively.

#### FEEES

The fees to be paid by students are subject to change at any time in the discretion of the Trustees. The following schedule is in force for the 1932-1933 session or for students accepted in any of the regular courses leading to degrees

#### COLLEGE COURSE (FIRST, SECOND AND THIRD YEARS)

Registration fee . . . . .	\$5
Student activities . . . . .	10
Breakage deposit . . . . .	10
Examination fee . . . . .	10
Tuition . . . . .	250
Laboratory fees . . . . .	45

## UNIVERSITY COURSE

	<i>First and Second Years</i>	<i>Third Year</i>	<i>Fourth Year</i>	<i>Graduate Years</i>
Registration fee . . . . .	\$5	\$5	\$5	\$5
Student activities . . . . .	10	10	10	
Breakage deposit . . . . .	10	25	25	25
Examination fee . . . . .	10	10	15	20
Tuition . . . . .	300	300	300	350
Laboratory fees . . . . .	60	60	60	60

*Special Courses.* Students desiring to pursue individual courses as special students will be required to pay at the rate of \$7.50 per point.

*Summer Courses.* The fee for any laboratory course is \$25 for first, second, and third year work in the College Course. In the University Course, the fee is \$25 for first and second year work and \$50 for third and fourth year work.

*Evening Courses.* The fees for the various evening courses will be found among the descriptions of these courses, beginning on page 47.

*Books and Supplies.* It is estimated that an expenditure of \$50 will cover the cost of the textbooks and necessary apparatus required for the entire College Course, and of \$75 for the entire University Course for the B.S. degree. The heaviest expenditure in all cases will be in the first year; many of the required reference works being used also in subsequent years.

## METHODS OF PAYMENT

*Regular Courses*

One of three methods for the payment of the tuition fee for the year may be elected by the candidate, as indicated below. In this connection, it is to be noted that all are required to pay the registration fee, the breakage deposit, the student activities fee and the first installment of the tuition fee at the time of registration. The dates for registration in the various classes will be found in the academic calendar on page 69.

A. Pay in full at the time of registration.

B. Pay one half of the tuition fee at the time of registration, and the balance on or before January 6, 1933. Under this arrangement, an additional \$3 must be added to the first installment.

C. Pay one third of the tuition fee at the time of registration; one third on or before December 5, 1932, and the balance on or before February 6, 1933. Under this arrangement, an additional \$5 must be added to the first installment.

A student electing plan B or C makes himself liable to suspension from further attendance if he fails to meet the payments when due.

Second, third and fourth year students, who register after the last day set for their registration (see Academic Calendar) are required to pay an additional fee of \$5 for late registration.

*Examination Fees.* Dates upon which fees for examination in course are required will be found in the Academic Calendar.

The rate for reexamination is on the basis of \$5 for each subject in September and \$10 for the entire series in the spring.

*Rebates.* The registration and student activities fees shall not be subject to rebate.

In the case of the total withdrawal of a student from the College, a partial return of the tuition fee may be authorized by the Trustees, but in no case shall more than two thirds of the total charge for that year be returned.

*Special, Summer, and Evening Courses.* Students registering in any of these courses are required to pay the tuition and other fees *in advance*.

## METHOD OF INSTRUCTION

The instruction of each class during the first and second years of the College Courses occupies three days of the week, the alternate days being free for practical experience in the pharmacy. This arrangement provides a source of income, which is a necessity for many of the students of the College. During the third year, an additional half-day must be devoted to work in the pharmacy laboratory. All students who can do so are urged to devote their third year wholly to College work.

For the purpose of more fully elucidating the subjects presented in the lectures and laboratories and of familiarizing the students therewith, and as a test of attention and progress, provision is made for a complete series of recitations or quizzes by a corps of qualified instructors. The order of topics and the manner of their treatment at these recitations follow closely the courses of instruction given by the professors in the respective departments. In order that all the members of the class may be drilled as often and as thoroughly as possible, the classes are divided into sections, the instruction of each section being identical, but conducted at different hours.

## REGULATIONS OF THE BOARD OF TRUSTEES

The rules and regulations stated in this Announcement and those posted on the bulletin boards, signed by the Chairman of an authorized committee, or by the Dean, will govern all students of this College until a new Announcement is issued.

## AUTHORITY OF THE DEAN

The Dean is the executive officer of the Faculty. It is his duty, under the direction of the President, to enforce the rules of the Faculty and of the Board of Trustees and to administer discipline in the case of their violation.

## DEAN'S OFFICE HOURS

Ordinarily the Dean will be found in his office at the hours given below. As he is frequently called out of the city, it is advisable to make important appointments by telephone.

*During College Term*

Tuesday at 11 a. m.

Wednesday, Friday, and Saturday at 10 a. m.

*During Summer Vacation*

Tuesday, Thursday, and Saturday at 10 a. m.

## REQUIREMENTS FOR ALL REGULAR STUDENTS

*Attendance*

Students are particularly requested to be in attendance at the commencement of the course, in order to obtain full benefit from the lectures. No student will be admitted more than two weeks after the opening of the term, and no member of the third and fourth year classes will be admitted later than one week after the opening, except by special permission of the Faculty.

Every student must attend during at least ninety per cent of the periods assigned to each course pursued. For being late twice at daily opening, the student will be charged with one absence.

*For failure to meet this requirement, the student forfeits the privilege of presenting himself for examination in the course or courses in which the excessive absences occurred.*

*Advancement in Classes*

Advancement from one class to the next requires that the student successfully pass an examination in all the subjects taught during the preceding year, the passing mark being seventy-five per cent, although the Faculty may admit a student to the next class conditioned in a single subject. It is to be particularly noted that in deciding upon the qualifications of candidates, their term's work and their character as students will be given due consideration.

Those students who fail to pass these examinations will be allowed to undergo supplementary examinations to be held as announced on page 69, provided, however, that they did not fail in a majority of their subjects. Students failing in a majority of their subjects will be required to repeat their entire course of that year, provided, however, that such students may be refused readmission if, in the judgment of the Faculty, they are not qualified to be students of this college. A student who fails in a laboratory course must repeat such course successfully before being advanced to the higher class. This work must be done during the summer, except in special cases.

By a regulation of the State Education Department, students failing in more than two subjects must make good the deficiency at the school where they so failed. Applicants for the supplementary examination must notify the Registrar on or before September 1, 1932.

Candidates for admission to advanced standing must either pass examinations in all the subjects of the preceding year or must produce evidence of having passed successfully examinations equal thereto.

## REQUIREMENTS FOR GRADUATION

Every person upon whom a degree is conferred by the College or the University must be of good moral character, and must have complied with all requirements for graduation.

Those who fail to appear for examination (after having handed in their names with the examination fee), or who do not pass satisfactorily, will be allowed to present themselves at the following spring examinations on paying an additional fee of \$10 and complying with all other requirements.

Any student who shall have failed three times in three or more subjects at the final examinations for graduation, shall be required to repeat the entire work of the final year before being again admitted to examination. Should the student again fail at the final examination and at the following supplementary examination, he will not be permitted to continue as a student, or to be examined again. Any student failing three times in one or two subjects, shall be required to repeat the entire work of the final year in such subject or subjects before being again admitted to examination.

All students must obtain a rating of seventy-five per cent or higher in every department in which they may be examined. Any student failing in one or more departments, but not in laboratory courses, may present himself for re-examination therein at the supplementary examination held in September, or at the next regular spring examination. If successful, he will be graduated without re-examination in the other departments. Failure in a laboratory course will necessitate the repeating of that course, which repetition must occur during the summer vacation, except in special cases. See schedule on page 47.

Students of the third year University Class failing in a laboratory course of a single department may be permitted to remove this failure during the Summer Laboratory Session. Students of this class failing in the laboratory courses of more than one department will be required to repeat in full those courses in which they fail, during the next regular session.

### PRIZES AND SCHOLARSHIPS

*Note.* Competition for the Kappa Psi Prize, the Seabury Scholarship and the Plaut Fellowship is open only to those students who pursue their entire course at this college.

The College reserves the right to withhold the award of any scholarship or prize, if in its opinion, no candidate has exhibited qualifications justifying the award.

**HONOR ROLL.** The College Classes and the University Classes will have separate and distinct honor rolls.

*For the College Classes,* the roll is limited to thirteen candidates, provided all have secured a general average of 85 per cent or over, and the mean of the ratings secured in the three Departments of Pharmacy, Materia Medica, and Chemistry will be the basis of computation for the general average.

*For the University Classes,* the roll is limited to three candidates, provided all have secured a general average of 85 per cent or over, and the mean of the ratings secured in the four Departments of Pharmacy, Materia Medica, Chemistry, and the Cultural Courses will be the basis of computation for the general average.

**TRUSTEES' PRIZES.** The Board of Trustees offers annually, to be presented at Commencement, three prizes of \$100 each, for the highest rating secured in competitive examination in the three Departments of Chemistry, Pharmacy, and

**Materia Medica.** These competitive examinations are open to those members of the graduating class who have attained positions on the honor roll of the College Course. (If the number of these honor students be less than thirteen, a sufficient number of graduates having the next highest averages to make that number will be permitted to compete for these prizes.) A certificate, stating the honor for which the prize has been awarded, is also presented to each of the recipients.

**ALUMNI ASSOCIATION PRIZES.** The Alumni Fund of the College of Pharmacy provides annually for a gold, a silver, and a bronze medal to be presented at Commencement to the three students having respectively attained the first, second, and third highest standings in all branches taught during the third year of the College Course.

The association also provides for five additional prizes awarded annually on Alumni Day to members of the first and second year classes of the College Course, as follows: *Torsion Balance*, awarded to that second year student who has secured the highest standing during the work of the two years; a copy of *The United States Dispensatory* to that student who has secured the highest standing during the work of the second year; a copy of Rusby, Bliss, and Ballard, *Properties and Uses of Drugs* awarded to that student securing the second highest standing in the work of the second year; a copy of Arny's *Principles of Pharmacy* to that student who has secured the highest standing in the work of the first year, and a copy of Sadtler, Coblenz, and Hostmann's *Pharmaceutical Chemistry* to that student who has secured the second highest standing in the work of the first year.

In the event that the winner of the *Torsion Balance* has the highest record for the second year, then *The United States Dispensatory* and the *Materia Medica* will be awarded respectively to the second and third member of the honor roll.

**MAX J. BREITENBACH PRIZE.** A cash prize of \$200, accompanied by a certificate, offered annually for the highest proficiency in the junior (third year) University Class. This prize is provided for in perpetuity from the interest of funds bequeathed to the College by the late Max J. Breitenbach, for many years a devoted Trustee.

**KAPPA PSI PRIZE.** The Gamma Chapter of the Kappa Psi Fraternity offers annually a gold medal to be awarded to that Pharmaceutical Chemist not receiving either the Breitenbach prize or the Seabury Scholarship who attains the highest standing throughout the three years of the course.

**LILLIAN LEITERMAN PRIZE.** A gold medal, offered annually by Miss Lillian Leiterman (1911), to that woman member of the graduating class who has maintained the highest standing throughout the entire three years of the College Course.

**J. LEON LASCOFF PRIZES.** Life membership in the American Pharmaceutical Association and in a state pharmaceutical association, offered annually by Trustee J. Leon Lascoff to the two members of the graduating class in the College Course who have been prominent in student activities, who have maintained a high degree of general scholarship, and who are adjudged by the Faculty to be worthy of such awards.

**TRUSTEES' SCHOLARSHIPS.** To the four students who maintain the highest proficiency in their respective classes during the first and second years of the College and University Courses, the Board of Trustees of the College annually awards scholarships for one year's tuition, to be applied to the following session of their respective courses.

**GEORGE J. SEABURY SCHOLARSHIP.** This scholarship has been founded by Dr. Henry C. Lovis, in memory of his uncle, Mr. George J. Seabury, for many years a member and patron of the College. It provides for the tuition, during the senior (fourth) year of the University Course, of that member of this class who has maintained the highest standing during the three years.

**ISAAC PLAUT FELLOWSHIP.** This fellowship for the encouragement of graduate study and original research was founded by Mr. Albert Plaut, in memory of his father, Isaac Plaut.

Candidates for this fellowship must have secured the degree of B.S. in Pharmacy at this college, and must also possess credit for a year's study of a foreign language, equivalent to that of the first year at Columbia College.

It provides for a year of study at a European school or university by that Bachelor of Science in Pharmacy of this college who will have shown during his full course of study here the greatest taste and aptitude for original investigation. Should no member of a class be deemed worthy of the award, it will be withheld.

The Fellow will be appointed by the Council of the University upon the nomination of the Trustees of the College of Pharmacy. He will attend a foreign institution to be selected by himself and approved by the Faculty of the College of Pharmacy, and will pursue a course of study approved by the Faculty. At the close of his incumbency he will present to the Faculty a written report of his work.

The fellowship payment will be made in three equal installments, one on June 15, one on November 1, and one on March 1, provided that the Fellow continues faithfully to pursue the work undertaken. In case of failure so to do, he will forfeit all further privileges and emoluments conferred upon him by his appointment to the fellowship, and the Trustees of the College of Pharmacy may declare the fellowship vacant.

**E. R. SQUIBB PRIZE.** This is an annual cash prize of \$100, offered by Messrs. E. R. Squibb and Sons, in memory of Dr. E. R. Squibb. It is awarded to that Graduate in Pharmacy who exhibits the greatest proficiency in analytical chemistry during his third year, as determined by the laboratory records.

**LOUIS DOHME PRIZE.** This is an annual cash prize of \$100, founded by Mr. Ernest Stauffen, in memory of Louis Dohme. It is awarded to that Graduate in Pharmacy who exhibits the best practical knowledge of the drugs of the United States Pharmacopœia and National Formulary, as determined by the laboratory records and examinations.

**JOSEPH WEINSTEIN PRIZE.** This prize consists of a gold medal and is offered by the New York Retail Druggists' Association, in memory of Dr. Joseph Weinstein. It is awarded to that Graduate in Pharmacy who has exhibited the greatest

proficiency in analytical chemistry during the three years, as determined by the laboratory records.

**ITALIAN PHARMACEUTICAL ASSOCIATION PRIZE.** This Association offers annually a gold medal to that Graduate in Pharmacy who has obtained the highest general average in practical laboratory work during the third year.

**LEHN and FINK PRIZE.** This prize consists of a gold medal, offered by Messrs. Lehn and Fink, of New York City, for the Graduate in Pharmacy attaining the highest average in the third year examinations in the Department of Pharmacy.

**WESTCHESTER COUNTY PHARMACEUTICAL ASSOCIATION PRIZE.** This Association offers annually a gold medal to that member of the graduating class who has attained the highest general average in the practical laboratory work of the Department of Pharmacy during the three years of the College Course.

**GERMAN APOTHECARY'S ASSOCIATION PRIZE.** In commemoration of its foundation in the year 1851, the German Apothecary's Association offers, annually, a gold medal to be awarded to that member of the graduating class who has exhibited during the final year of the College Course the greatest proficiency in the compounding of prescriptions.

**OLSHANSKY MEMORIAL MEDAL.** This is a gold medal, founded by the students of this college in attendance upon the session of 1923-1924, in memory of their beloved instructor, Jacob Calman Olshansky, whose death occurred during that academic year. This medal is to be awarded annually to that student who has attained the highest average in the final year of the College Course in the subject of dispensing pharmacy.

**DIEKMAN PRIZE.** This prize was founded in 1930 by the Dante Circle, in honor of Dr. George C. Diekman, Professor Emeritus of Pharmacy. It consists of a gold charm, and is awarded to that member of the graduating class who has attained the highest average in the courses in theoretical pharmacy throughout the three years of the College Course.

**NEW YORK STATE PHARMACEUTICAL ASSOCIATION PRIZE.** A year's membership offered by the Association to a member of the Honor Roll not winning any other prize.

## STUDENT ORGANIZATIONS

Under direction of the Student Activities Committee.

### STUDENT COUNCIL

### FRATERNITIES AND SORORITIES

Kappa Psi  
Phi Delta Chi  
Rho Pi Phi  
Delta Sigma Theta

Alpha Zeta Omega  
Sigma Tau Epsilon  
Tau Delta Mu  
Circolo Dante

Lambda Kappa Sigma



## SOCIETIES

Maimon Society  
Rice Chemical Society

Menorah Society  
Chess and Checker Club

## ATHLETICS

Basket ball

Wrestling

## SYNOPSIS OF STUDIES FOR THE SESSION OF 1932-1933

## COLLEGE COURSE

*First Year*

		Class Hours	Laboratory Hours	Points
<i>Chm. 1-2</i>	General physics	3	0	6
<i>Chm. 3-4</i>	Inorganic chemistry	3	0	6
<i>Chm. 5-6</i>	Analytical chemistry (qualitative)	0	3	3
<i>MM 1-2</i>	Botany	2	0	4
<i>MM 3-4</i>	Botany laboratory	1	4	6
<i>MM 5-6</i>	Posology	1	0	2
<i>Phr. 1-2</i>	Operative pharmacy	2	3	7
<i>Phr. 3</i>	Pharmaceutical arithmetic	2	0	2
<i>Phr. 4</i>	Pharmaceutical history and ethics	2	0	2

*Second Year*

<i>Chm. 55-56</i>	Inorganic chemistry	3 ½	0	7
<i>Chm. 59-60</i>	Analytical chemistry (acidic ions and volumetric)	0	3 ½	3 ½
<i>MM 53-54</i>	Pharmacognosy	0	3	3
<i>MM 57-58</i>	Human physiology and hygiene	2	0	4
<i>MM 59-60</i>	Microbiology	1	1	3
<i>Phr. 51-52</i>	Theory of pharmacy	1 ½	0	3
<i>Phr. 53-54</i>	Pharmaceutical Latin	1 ½	0	3
<i>Phr. 55-56</i>	Dispensing pharmacy	1	3	5
<i>Phr. 61-62</i>	Commercial pharmacy	3 1	2	6 4

*Third Year*

<i>Chm. 103-104</i>	Organic chemistry	3	0	6
<i>Chm. 107-108</i>	Newer remedies	2	0	4
<i>Chm. 109 (110)</i>	Analytical chemistry (advanced volumetric and pharmacopœial assaying)	0	6 <sup>1</sup>	3
<i>MM 101-102</i>	Materia medica	3	0	6
<i>MM 103-104</i>	Toxicology	1	0	2
<i>MM 109-110</i>	Medical appliances and first aid	1	0	2
<i>Phr. 101-102</i>	Theoretical pharmacy	3	0	6
<i>Phr. 103-104</i>	Theoretical dispensing pharmacy	2	0	4
<i>Phr. 105 (106)</i>	Manufacturing pharmacy	0	6 <sup>1</sup>	3
<i>Phr. 107-108</i>	Dispensing pharmacy	0	4	4
<i>Phr. 109-110</i>	Pharmaceutical jurisprudence and business pharmacy	3	0	6

<sup>1</sup> During 16 weeks.

## UNIVERSITY COURSE

*First Year*

		Class Hours	Laboratory Hours	Points
<i>Chm. 1-2</i>	General physics	3	0	6
<i>Chm. 3-4</i>	Inorganic chemistry	3	0	6
<i>Chm. 7</i>	Inorganic chemistry laboratory	0	4 <sup>2</sup>	2
<i>Chm. 8</i>	Analytical chemistry	0	4 <sup>2</sup>	2
<i>Chm. 10</i>	Physics laboratory	0	4 <sup>2</sup>	2
<i>Phr. 3</i>	Pharmaceutical arithmetic	2	0	2
<i>Phr. 4</i>	Pharmaceutical history and ethics	2	0	2
<i>Phr. 5-6</i>	Operative pharmacy	2	2	6
<i>Eng. 1-2</i>	English	4	0	8
<i>Hist. 1-2</i>	American history	3	0	6

(For information concerning subsequent years, see page 68.)

*Second Year*

<i>Chm. 54</i>	Practical physics	0	4 <sup>2</sup>	2
<i>Chm. 55-56</i>	Inorganic chemistry	3 ½	0	7
<i>Chm. 57-58</i>	Analytical chemistry (acidic ions and volumetric)	0	3 ½	3 ½
<i>MM 55-56</i>	Macroscopic pharmacognosy	0	2	2
<i>MM 57-58</i>	Human physiology and hygiene	2	0	4
<i>MM 61-62</i>	Bacteriology	1	2	4
<i>Phr. 51-52</i>	Theory of pharmacy	1 ½	0	3
<i>Phr. 53-54</i>	Pharmaceutical Latin	1 ½	0	3
<i>Phr. 57-58</i>	Dispensing pharmacy	1	3	5
<i>Phr. 59</i>	Manufacturing pharmacy	0	4 <sup>2</sup>	2
<i>Phr. 61-62</i>	Commercial pharmacy	3	0	6
<i>Ger. 51-52</i>	German	5	0	10

*Third Year*

<i>Chm. 101-102</i>	Theories of chemistry	1	0	2
<i>Chm. 103-104</i>	Organic chemistry	3	0	6
<i>Chm. 106</i>	Analytical chemistry (advanced volumetric, pharmacopœial testing, and urine analysis)	0	16 <sup>1</sup>	10
<i>MM 101-102</i>	Materia medica	3	0	6
<i>MM 103-104</i>	Toxicology	1	0	2
<i>MM 111-112</i>	Microscopic pharmacognosy	½	1 ½	2 ½
<i>Phr. 101-102</i>	Theoretical pharmacy	3	0	6
<i>Phr. 109-110</i>	Pharmaceutical jurisprudence and business pharmacy	3	0	6
<i>Phr. 111</i>	Manufacturing pharmacy	0	13 <sup>3</sup>	5
<i>Phr. 113</i>	Practical dispensing pharmacy	0	3 <sup>2</sup>	1
<i>Math. 101</i>	Algebra	3	0	3
<i>Math. 102</i>	Trigonometry	3	0	3

<sup>1</sup> During 19 weeks.

<sup>2</sup> During 16 weeks.

<sup>3</sup> During 12 weeks.

## Fourth Year

<i>Chm. 151-152</i>	Inorganic quantitative analysis	1	29 <sup>3</sup>	10
<i>Chm. 153-154</i>	Food analysis and toxicology	1	29 <sup>3</sup>	10
<i>Chm. 155-156</i>	Biological chemistry	1	0	2
<i>MM 152</i>	Applied pharmacognosy	2	21 <sup>3</sup>	6 ½
<i>MM 154</i>	Botanical taxonomy	0	6 <sup>3</sup>	1 ½
<i>MM 155-156</i>	Human physiology	1	0	2
<i>Phr. 151-152</i>	Advanced pharmacy	1	0	2
<i>Phr. 153-154</i>	Pharmaceutical assaying	0	29 <sup>3</sup>	7
<i>Bibl. 151-152</i>	Pharmaceutical bibliography	1	0	2

<sup>3</sup> During 8 weeks.

# COURSES OF INSTRUCTION

## CHEMISTRY

**Chemistry 1-2—General physics** (for University freshmen and first year College students). Lectures and recitations 3 hours, 6 points. Professor A. TAUB and instructors.

The first semester of this course covers the subjects of mechanics, the kinetic molecular theory, the properties of matter, heat, wave motion, and sound.

The second semester embraces the subjects of magnetism, electricity and light. Particular consideration is given to the electron theory, electrolysis, ionization of gases, spectroscopy and polarization.

The lectures are abundantly illustrated with experiments, the College possessing a fine set of modern physical apparatus.

Textbook: Stewart, *College Physics*.

**Chemistry 3-4—General inorganic chemistry** (for University freshmen and first year College students). Lectures and recitations 3 hours, 6 points. Professors H. V. ARNY, A. TAUB, and instructors.

This course, the beginning of consecutive instruction in chemistry covering three years, is given to the first year students of both the College and the University Classes. It opens with a careful consideration of the fundamental principles of chemistry followed by a discussion of the non-metals and their compounds from their cultural, technical, and pharmaceutical viewpoints.

Textbooks: Deming, *General Chemistry*, third edition; *U. S. Pharmacopœia*.

**Chemistry 5-6—Analytical chemistry** (first year College students). Laboratory 3 hours, 3 points. Professors H. H. SCHAEFER, L. JAYNE and instructors.

The course in analytical chemistry consists of laboratory instruction and is attended by the class in sections. Each student is provided with the necessary equipment, and is required to perform all the operations involved in qualitative chemical analysis. The uses of apparatus, the actions of reagents, and the proper manner of bringing about chemical reactions are illustrated and explained. On account of the fundamental importance to the true understanding of the subject the simple laws governing chemical action in solution and the formation of precipitates, the nature of solution, etc., are explained to the student. At first, and under the guidance of the teacher, the characteristic reactions of the basic components are studied in solution, or in the solid at a high temperature. The phenomena observed are interpreted and discussed, and the conclusions recorded. Later, the reactions are represented by equations. The value of grouping is utilized and separations and identifications of group members are performed. Finally, all facts required by direct observation are brought together in the systematic procedure for analysis of mixtures. In this recapitulation, individual effort is stimulated by independent work on unknown samples.

Textbook: Schaefer and Bliss, *Qualitative Chemical Analysis*.

**Chemistry 7—Inorganic chemistry laboratory** (for University freshmen). Laboratory 4 hours for 16 weeks, beginning September 19, 1932. 2 points. Professor H. C. KASSNER and instructors.

The student will be made familiar with laboratory processes by means of a course of experiments in inorganic chemistry, involving the isolation of important elements and a study of their physical and chemical properties; typical compounds are prepared and purified and an examination of their reactions is carried out. Fundamental laws of chemistry are illustrated by experiments conducted by the students who thus obtain a clear understanding of the principles upon which the science of chemistry is based, as well as experience in the manipulation of chemical apparatus.

Textbook: Deming and Arenson, *Exercises in General Chemistry*.

Reference Book: Deming, *General Chemistry*.

**Chemistry 8—Analytical chemistry** (for University freshmen). Laboratory 4 hours for 16 weeks, beginning January 23, 1933. 2 points. Professor H. C. KASSNER and instructors.

This course in qualitative analysis consists of a study of the basic ions; first the student learns their reactions and he is then taught to separate them systematically and to identify them. Finally he is required to analyze solutions containing two or more basic ions. Throughout the course the theoretical principles upon which the laboratory work is based are explained in detail.

Textbook: Scott, *Qualitative Analysis*; Scott, *Elements of Qualitative Chemical Analysis*.

**Chemistry 10—Practical physics** (for University freshmen). Laboratory course 4 hours for  $\frac{1}{2}$  year, 2 points. Professor A. TAUB and instructors.

The course consists of sixteen half-day periods of four hours each, given during the second half of the year.

This work consists of experiments in fundamental physical measurements followed by special work in mechanics, heat, light, sound, and electricity. The laboratory is equipped not only with apparatus for routine exercises, but has the appliances necessary for work in colorimetry, spectroscopy, spectrophotometry, refraction, calorimetry, and electrochemistry.

**Chemistry 54—Practical physics** (for University sophomores). Laboratory course 4 hours for  $\frac{1}{2}$  year, 2 points. Professor A. TAUB and instructors.

For description, see *Chemistry 10*.

**Chemistry 55-56—Inorganic chemistry** (for University sophomores, and second year College students). Lectures and recitations  $3\frac{1}{2}$  hours, 7 points. Professors H. V. ARNY, A. TAUB, and instructors.

This course, a continuation of *Chemistry 3-4*, will be devoted to a consideration of the metallic elements and their compounds. It will open with a discussion of ionization and throughout the course, all of the more important principles of theoretical inorganic chemistry, such as the modern theories concerning valence, chemical equilibrium, oxidation, reduction and atomic structure, will be discussed. In descriptive chemistry, the course will consider all of the more important metallic elements and their salts. These will be discussed from the standpoint of modern industrial chemistry.

Exercises in writing and calculating chemical equations and work on problems in chemical arithmetic are given in special quiz periods devoted exclusively to these important subjects.

Textbook: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition.

**Chemistry 57-58—Analytical chemistry** (for University sophomores). Laboratory course  $3\frac{1}{2}$  hours,  $3\frac{1}{2}$  points. Professor H. C. KASSNER and instructors.

The course in qualitative analysis begun in the first year is continued through the first half of the second year. The sequence of work is as follows:—(1) the study of the acidic-ions according to an analytical scheme of separation; (2) a systematic method of preliminary testing of unknown compounds; (3) the preparation for analysis of water-insoluble substances; and (4) the complete qualitative analyses of unknown solutions or powders containing two or more compounds.

The second half of the year's work is devoted to a course in volumetric analysis. This begins with the study of general principles and theoretical considerations, the theory of indicators, pH values and the use of the analytical balance. It continues with the preparation of certain volumetric solutions and their uses in quantitative analysis by (1) neutralization, (2) precipitation, (3) oxidation and reduction, and (4) iodometry.

Textbooks: Scott, *Elements of Qualitative Chemical Analysis*; Scott, *Qualitative Analysis*; U. S. Pharmacopœia; Jenkins and DuMez, *Quantitative Pharmaceutical Chemistry*.

**Chemistry 59-60—Analytical chemistry** (second year College students). Laboratory course  $3\frac{1}{2}$  hours,  $3\frac{1}{2}$  points. Professors H. H. SCHAEFER, L. JAYNE, and instructors.

The first half of the second year course is devoted to completing the instruction in qualitative analysis. The discussion of the simpler fundamental laws governing chemical and physical changes in solution, begun in the first year, are followed to conclusion. The preliminary testing and preparation of a sample for analysis, involving solution in solvents other than water, and the procedure for analysis of substances insoluble in water and acids, are studied and practiced. The greater part of the time is devoted to the study of the acidic components.

The second half of the school year is devoted to the theory and practice of volumetric analysis. The proper preparation of volumetric solutions is given consideration and all types of U. S. P. volumetric assays are conducted. The theories of indicators are presented and considerable time is devoted to the calculations involving a knowledge of volumetric analysis.

Textbooks: Schaefer and Bliss, *Qualitative Chemical Analysis*; U. S. Pharmacopœia.

**Chemistry 101-102—Theories of chemistry** (for University juniors). Lectures and recitations 1 hour, 2 points. Professor H. H. SCHAEFER.

The object of this course is to bring together, to correlate and to elaborate somewhat the various theories presented to the student in the regular chemistry and physics lectures. Consideration is given to the kinetic theory, the gas laws, the laws governing change of state, the quantitative laws of chemical combination, the atomic hypothesis, the laws of valence, the periodic system, radioactivity, atomic disintegration, atomic structure, solubility, ionization, indicators, equilibrium, electrochemistry, and colloids.

Special importance is placed upon the practical application of modern theories of physical chemistry to analytical processes and methods.

Textbook: Chapin, *College Chemistry*.

**Chemistry 103-104—Organic chemistry** (for University juniors and third year College students). Lectures and recitations 3 hours, 6 points. Professors H. V. ARNY, A. TAUB and instructors.

This course, a continuation of *Chemistry 3-4* and *55-56*, will be devoted to a comprehensive study of the carbon compounds, special care being taken to keep the course abreast the new applications of organic chemistry in pharmacy and medicine. The preparation of the more common organic chemicals is given careful consideration and advances under modern methods of research are presented to the class as they are reported.

All the official and the more important unofficial organic pharmaceutical chemicals and medicinal products, notably the newer synthetic remedies, are taken up and classified according to their position in the various organic groups. By this method of classification the subject of organic pharmaceutical chemistry is presented in the same sequence as that of general organic chemistry.

Textbook: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition; U. S. Pharmacopœia.

**Chemistry 106—Analytical chemistry and urine analysis** (for University juniors). Laboratory. 16 hours for 19 weeks, beginning December 12, 1932, 10 points. Professor H. C. KASSNER and instructors.

During the first part of the course, the student is supplied with pure and adulterated samples of official organic chemicals and is required to test them for identity and purity to determine whether they conform to the requirements of the Pharmacopœia, each sample studied representing a typical class of organic compound. This work also involves the determination of congealing, boiling and melting points, fractionations, alcoholmetric estimations and other determinations of like character.

A short course in the qualitative examination and identification of organic compounds, including the preparation of derivatives and the determination of physical constants is included.

The second section of the course is devoted to volumetric analysis, the solutions used being prepared and standardized by the student. The substances assayed include antiseptics, disinfectants, ointments, volatile oils, etc.

The third part of the year's work deals with the assaying of vegetable drugs, including determination of alkaloids in crude drugs and their pharmaceutical products, crude fiber, soluble extractive, etc.

The above course is concluded with certain miscellaneous assays. The final period is devoted to the analysis of urine.

Textbooks: *U. S. Pharmacopæia*; H. T. Clarke, *Handbook of Organic Analysis*; Jenkins and DuMez, *Quantitative Pharmaceutical Chemistry*.

**Chemistry 107-108—Newer remedies** (third year College students). Lecture and recitations 2 hours, 4 points. Professor H. H. SCHAEFER and instructors.

The aim of this course is to make the students familiar with the many preparations generally classified as "synthetics" which are prescribed by physicians but which are not official. Most of these preparations are rather recent additions to our materia medica and many of them are covered by patents. The products are not selected because of their medicinal merit but rather because of the frequency with which they are prescribed. Not only will the chemistry of these preparations be considered, but whenever possible, original packages will be shown to the students and the names of their manufacturers given.

Textbook: *New and Non-official Remedies*.

**Chemistry 109—Analytical chemistry** (third year College students). Laboratory 6 hours for  $\frac{1}{2}$  year, 3 points. Professors H. H. SCHAEFER, L. JAYNE, and instructors.

This course will be given in six-hour periods to one section during the first half year and to the other section during the second half. This will enable the student to perform operations which require more time than is available in the usual three-hour period. The course will be devoted entirely to pharmaceutical testing and assaying. Some of the more important operations to be carried out are:—The preparation and standardization of volumetric solutions, testing the purity and strength of official chemicals and galenicals, selected gravimetric determinations, iodine values, saponification values, examination of oils, identification of alkaloids. The assay of crude drugs will be given special attention by dividing the section into still smaller groups for this work thus insuring better and more careful supervision. Practice will of course be given in the use of the analytical balance.

Textbooks: *United States Pharmacopæia and National Formulary*.

**Chemistry 110—Same as Chemistry 109** but given during the second half of year.

**Chemistry 151-152—Inorganic quantitative analysis** (for University seniors). Lectures 1 hour a week for 32 weeks, laboratory, 29 hours a week for 8 weeks, beginning September 19, 1932, 10 points. Professor H. C. KASSNER and instructors.

The aim of this course is to train the student to carry out with precision many of the more difficult analyses of chemical and pharmaceutical products.

The laboratory work of the course consists, in the main, of a series of selected gravimetric determinations covering a wide field of substances, chosen to illustrate typical methods of procedure. This work is supplemented by operations involving the use of the viscosimeter, bomb calorimeter, etc.

In the lecture course, methods of quantitative analysis, gravimetric, volumetric, colorimetric etc., are discussed at length and compared.

Reference books: Scott, *Standard Methods of Chemical Analysis*; Hillebrand and Lundell, *Applied Inorganic Analysis*.

**Chemistry 153-154—Food analysis and toxicology** (for University seniors). Lectures 1 hour a week for 32 weeks, laboratory 29 hours a week for 8 weeks, beginning November 14, 1932, 10 points. Professors H. V. ARNY, H. C. KASSNER, and instructor.

In order to give every advantage to the instruction in this department during the fourth year, the College has provided very complete apparatus, which supplies the very best facilities that modern science affords.

The work in this department will cover the following courses:

1. Analysis of various foodstuffs, including milk, butter, flavoring extracts, etc.
2. Chemical and sanitary examination of water.
3. Isolation and detection of organic and inorganic poisons.

In addition to the laboratory work just outlined there will be a lecture course describing the various chemical and physical methods of food examination.

Textbooks: Leach, *Food Analysis*; Mason, *Examination of Water*.

Reference Books: Allen, *Commercial Analysis*; Autenrieth-Warren, *Detection of Poisons*.

**Chemistry 155-156—Biological chemistry** (for University seniors). Lectures 1 hour, 2 points. Professor M. KARSHAN.

The instruction in inorganic and organic analysis relates to the examination of substances disconnected from the living body, but the competent analyst must be prepared to consider and act upon a knowledge of the natural changes which substances undergo when absorbed into the living body, as well as the natural products there originating.

## MATERIA MEDICA

**Materia Medica 1-2—Botany** (for first year College students). Lectures and recitations 2 hours, 4 points. Professor F. HART and instructors.

The object of this course is to prepare the student for an understanding of that part of materia medica which relates to vegetable drugs. In the limited time allotted to this study, it is impossible to pursue it in all its departments, and attention is concentrated upon such instruction as will fit the student for professional work in pharmacy. The instruction includes a brief consideration of plant life in general and the evolution of the higher plants from those of a simpler nature. The major portion of the time available is devoted to the morphology of the higher plants from which nearly all of our vegetable drugs are derived, the terms used in official descriptions, systems of classification, and botanical nomenclature.

Textbook: Rusby, *Manual of Botany*.

**Materia Medica 3-4—Botany laboratory** (first year College students). Lectures and recitations 1 hour, laboratory 4 hours, 6 points. Professors C. W. BALLARD, F. HART, H. TAUB, and instructors.

This course affords opportunity for personal observations supplemental to the theoretical training of the botany lectures (*MM 1-2*) and is a preparation for the study of pharmacognosy. The course is divided into three parts as follows:

**General:** A brief résumé of the developmental sequence of plant life from the single-celled forms to the seed-bearing plants.

**Morphology:** A detailed study of the various organs of the seed-bearing plants and involving dissection of these parts both with and without the aid of the simple microscope.

**Histology:** As ability to use a microscope properly is the foundation of success in all branches of microscopy, first attention is given to a consideration of the parts and methods of using the instrument.

The course under the direction of Professor BALLARD includes the study of plant tissues and the various types of cell contents. A physiological grouping of the tissues is followed by detailed study of the forms, modifications, locations, functions and differences in chemical constitution of the cellular elements concerned in protection, support, absorption, transportation, synthesis, and storage. The organic and inorganic cell contents are classified; details of their synthesis are considered and the more commonly used microchemical tests are demonstrated. This work is followed by a detailed study of the arrangement of cells and disposition of cell contents in the various parts and organs of the plant.

Textbooks: Ballard, *Elements of Vegetable Histology*, Second Edition; Ballard and Hart, *Laboratory Manual*.



**Materia Medica 5-6—Posology** (first year College students). Lectures and recitations 1 hour, 2 points. Professor H. TAUB.

The average dosage of U. S. P. and N. F. drugs is considered with the object of teaching the student to recognize an overdose in actual prescription practice. The course covers the recognition of safe and dangerous prescriptions, approximate equivalents and conversion methods from one system into the other, and dosage of non-official but commonly prescribed synthetic remedies.

**Materia Medica 53-54—Pharmacognosy, macroscopic and microscopic** (second year College students). Laboratory 3 hours, 3 points. Professor H. TAUB and instructors.

**Macroscopic:** This part of the course comprises laboratory instruction in the classification, identification and description of the vegetable drugs of the U. S. Pharmacopœia and National Formulary. The drugs and medicinal products of vegetable origin are grouped according to the parts of the plant from which they are derived and further classified on the basis of medicinal constituents. Each drug receives separate attention in the laboratory and the following details are considered—titles under which the drug is known; botanical, geographical and commercial sources; official description, definition and prevailing standards; liability to adulteration or substitution; preparation for market and proper means of preservation or storage.

Each student receives a typical specimen of the drug under consideration and must retain the same for future reference. At the completion of the course each student possesses a collection of the official crude drugs as his personal property. Proficiency in the identification of the drugs studied is determined by practical examinations at short intervals during the term. A knowledge of botany (*Materia Medica 1-2, 3-4* or equivalent) is prerequisite to a proper understanding of the work in this course.

**Textbooks:** Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*.

**Microscopic:** The preliminary work of this part of the course will consist of a brief review of the cellular elements and cell contents in the parts of plants used as drugs or foods. In this manner the work in vegetable histology of the first year (course *Materia Medica 3-4*) is coördinated to the more detailed study of microscopical pharmacognosy. Powders prepared from drugs representing different parts of the plant will be used as material for study. By utilization of the sections prepared in the first year it will be possible, in many instances, for the student to compare the section with the powder and thus observe the disposition of the cellular elements *in situ* and the changes in appearance incidental to powdering. The number of specimens studied is necessarily limited by the amount of time which can be given to the work but the subject matter of the course is so arranged that representative rather than extraordinary types are considered. The student is expected to construct and use analytical keys in the identification of the powdered materials examined. Progress in course is determined by a series of practical examinations at short intervals throughout the year and the student must record his observations by drawings made from his specimens.

**Textbooks:** Ballard, *Elements of Vegetable Histology*, Second Edition; Ballard, *Laboratory Manual*.

**Materia Medica 55-56—Macroscopic pharmacognosy** (for University sophomores). Laboratory 2 hours, 2 points. Professor H. TAUB.

This course includes all of the instruction offered in macroscopic pharmacognosy, *Materia Medica 53-54*, but in addition many non-official articles of commercial and technical importance are studied. Experience in manufacturing fields has shown that these non-official drugs and drug materials are in frequent use and familiarity with them is especially important in view of their non-inclusion in the Pharmacopœia and National Formulary.

**Textbooks:** Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*; Youngken, *Pharmacognosy*.

**Materia Medica 57-58—Human physiology and hygiene** (for University sophomores and second year College students). Lectures and recitations 2 hours, 4 points. Professor H. H. RUSBY and instructors.

In addition to the skill in pharmacognosy required for the selection of drugs, the educated pharmacist is required to possess some general information concerning the properties and uses of the materials which he is engaged in handling and dispensing; that is, of the general classification

of medicines. As such classification depends directly upon their physiological properties, a limited and specialized course of instruction in human physiology is provided.

The method consists in so arranging the order of subjects that the student shall be led from the very first lesson to see the manner in which disordered bodily functions may be restored to a healthy condition by the action of medicines, and leads to the immediate classification of the more important remedies in connection with the study of the organs or systems to the functions of which they apply. While this method gives an accurate knowledge of the facts involved, it permits of the exclusion of a large portion of the subject of physiology, and reduces to a minimum the amount of time expended in acquiring such a knowledge of this department of materia medica as is properly required of the practicing pharmacist.

Textbook: Bachman and Bliss, *Essentials of Physiology*.

**Materia Medica 59-60—Microbiology** (second year College students). Lectures and recitations 1 hour, laboratory and demonstrations 1 hour, 3 points. Professor F. HART and instructors.

This subject constitutes an introduction to the nature, behavior and effects of microorganisms, especially of bacteria. Without entering upon the subject of practical laboratory bacteriology, as is done in the University Course, it discusses the life history of bacteria, and the part that they play in fermentation and decomposition, as well as in disease, and indicates the general nature of the means employed in combating them, and treats of biological products. The subject of sterilization, as employed in the pharmacy, and the principles of antiseptics and immunization are studied.

**Materia Medica 61-62—Bacteriology** (for University sophomores). Lectures 1 hour, laboratory 2 hours, 4 points. Professor F. HART and instructors.

A separate and fully equipped bacteriological laboratory is maintained, and practical work in this important field is taken up. The general principles of the science are taught, and the students cultivate, stain, and study the more important microorganisms. Laboratory methods in the bacterial examination of water, air, milk, ice, sputum and excreta are given, and methods of disinfection and sterilization are practically demonstrated. The course includes the microscopy of the blood with special emphasis on the structural differences of that tissue in health and disease.

Textbook: Mackie and McCartney, *An Introduction to Practical Bacteriology*.

**Materia Medica 101-102—Materia medica** (for University juniors and third year College students). Lectures and recitations, 3 hours, 6 points. Professor C. W. BALLARD and instructors.

This course includes instruction in both the inorganic and organic divisions of drugs. In connection with the extension of our course to three years, the instruction in materia medica has been completely reorganized and a new textbook has been written for the students. In the new arrangement, the drugs have been classified in accordance with their medicinal uses. Discussion of the individual drugs covers the official titles, abbreviations, definitions and standards, origin, preparation, preservation, variations in quality and causes of such variation, constituents, properties and uses, preparations and doses. All instruction in description, structure and identification, and the detection of adulterants and impurities is referred to the extensive course in pharmacognosy.

Textbook: Rusby, Bliss and Ballard, *Properties and Uses of Drugs*.

**Materia Medica 103-104—Toxicology** (for University juniors and third year College students). Lectures and recitations, 1 hour, 2 points. Professor C. W. BALLARD and instructors.

The classification of poisons is based upon the physiological action of medicines, taught in the preceding year, and is synoptically presented at the beginning of the course in materia medica. The toxicology of the individual drugs is then taken up in detail in connection with their physiological action and medicinal uses. Experience has shown that by this method the modes of occurrence of poisoning accidents, the poisonous doses, the action of poisons and their rational treatment, are all made more intelligible to the student, and are better impressed upon his memory, than by treating the subject as entirely disconnected from that of materia medica.

Textbook: Rusby, Bliss and Ballard, *Properties and Uses of Drugs*.

**Materia Medica 109-110—Medical appliances and first aid** (third year College students). Lectures 1 hour, 2 points. Professor C. W. BALLARD.

This course includes a systematic presentation of the facts of interest to the retail pharmacist in the use and sale of the ordinary sick-room sundries. The course is thus linked with materia medica on the one hand and commercial pharmacy on the other. Among the topics considered are: bandaging and dressing materials, rubber sundries, glass and metal appliances and ligatures. A brief series of lectures is included in connection with first-aid treatment. This instruction is to enable the pharmacist to cooperate intelligently with the physician in dealing with the common emergencies in which first recourse is often to the nearest pharmacy.

**Materia Medica 111-112—Microscopic pharmacognosy** (for University juniors). Lectures  $\frac{1}{2}$  hour, laboratory  $1\frac{1}{2}$  hours,  $2\frac{1}{2}$  points. Professor H. TAUB and instructors.

This course consists in a detailed study of the histological structure of the several plant organs, followed by a consideration of the characters and adulterants of the commonly used powdered drugs. It includes the preparation of specimens both in sectioned and powdered forms and the application of stains and microchemical tests to the materials so prepared.

Textbook: Ballard, *Laboratory Manual*.

**Materia Medica 152—Applied pharmacognosy** (for University seniors). 2 hours lecture, 21 hours laboratory for eight weeks beginning March 20, 1933.  $6\frac{1}{2}$  points. Professors C. W. BALLARD, H. TAUB, and instructor.

The object of this course is instruction in the methods of applying the principles of microscopy to practical problems apt to be encountered in the average commercial laboratory. The introductory work will consist of a consideration of the general methods employed in microanalysis and the uses of the more common accessories, including polarizing apparatus, measuring apparatus, counting chambers, dark field and vertical illumination. Each student is required to prepare sections of the various types of vegetable materials, using these sections for the demonstration of staining procedures and microchemical reactions. This will be followed by practical and individual work in the qualitative determination of typical drugs and mixtures to which microanalytical methods are applicable. During this work, it is expected that the student will avail himself of the library facilities of the College and freely use the economic drug and food collections of the laboratory for reference and comparison purposes. The aim is to duplicate actual commercial laboratory conditions and to train the worker to depend upon himself. The materials used for teaching purposes will, so far as possible, be commercial products which have been analyzed by microscopical methods.

References: Youngken, *Pharmacognosy*.

**Materia Medica 154—Botanical taxonomy** (for University seniors). 6 hours laboratory for eight weeks beginning March 20, 1933.  $1\frac{1}{2}$  points. Professor H. H. RUSBY.

A good working knowledge of the terms used in descriptive botany, such as can be gained by a study of Rusby, *Manual of Botany*, will be found a sufficient preparation for this course.

The object of this course is to present a general idea of the system of flowering plants, and of their classification and determination by the use of descriptive works. The work consists of the laboratory study of types of the principal families, especially those rich in medicinal and poisonous species.

Textbook: Rusby, *Manual of Botany*.

References: Bentham and Hooker, *Genera Plantarum*; Engler and Prantl, *Pflanzenfamilien*.

**Materia Medica 155-156—Human physiology** (for University seniors). Textbook and conferences 1 hour, 2 points. Dr. A. HOPPING.

This course consists of a series of discussions, based on assigned reading, occupying 1 hour weekly throughout the term.

Textbook: Howell, *Physiology*.

## PHARMACY

**Pharmacy 1-2—Operative pharmacy** (for first year College students). Lecture 1 hour, recitation 1 hour, laboratory 3 hours. 7 points. Professors L. N. BROWN, H. M. CARTER, J. S. DORFMAN, and instructors.

The purpose of this course is to introduce the student to the fundamentals of pharmaceutical science. It comprises the study of elementary operations, such as heating, evaporating or sublimation, distillation, solution, crystallization, precipitation, filtration, etc. It also includes a study of the general principles involved in the manufacture of galenicals, such as fluid extracts, tinctures, etc.

The laboratory work is closely related to that of the lectures. The various processes are carried out; type products are manufactured. The course also includes determination of specific gravities, solubility of determination and alcoholic content of pharmaceutical preparations.

Textbooks: U. S. Pharmacopœia, Arny's *Principles of Pharmacy*; Wimmer's *Operative Pharmacy Notes*.

**Pharmacy 3—Pharmaceutical arithmetic** (for first year College and University students). Lecture 1 hour; recitation 1 hour. One semester. 2 points. Professor L. N. BROWN and instructors.

This comprises the first half of the required instruction in pharmaceutical arithmetic, the second half being given in the second year. The more elementary portions of the work are taken up, such as weights and measures, specific gravity calculations, thermometric scales, conversions of the various systems into each other, etc.

Textbook: Sturmer, *Pharmaceutical Arithmetic*.

**Pharmacy 4—Pharmaceutical history and ethics** (for first year College and University students). Lecture 1 hour, recitation 1 hour. One semester. 2 points. Professor C. P. WIMMER and instructors.

The purpose of this course is to introduce pharmacy as a profession to the student. It consists of a series of lectures on the historical development of pharmacy, beginning with the Egyptian era and tracing it through the Greek, Roman, Arabic, and European periods up to the present time. Special stress is laid upon the development of pharmacy in the United States; its position in the economic life of the nation; its organization; the aims, purposes and accomplishments of the various pharmaceutical associations; the pharmaceutical Code of Ethics, etc.

**Pharmacy 5-6—Operative pharmacy** (for first year University students). Lecture 1 hour, recitation 1 hour, laboratory 2 hours. 6 points. Professor H. M. CARTER and instructors.

This course is similar in nature and scope, as outlined under *Pharmacy 1-2*.

Textbooks: Same as for *Pharmacy 1-2*.

**Pharmacy 51-52—Theoretical pharmacy including pharmaceutical arithmetic** (for University sophomores and second year College students). Lecture 1 hour, recitation  $\frac{1}{2}$  hour. 3 points. Professors C. P. WIMMER, L. N. BROWN, and instructors.

This course is devoted to the study of pharmaceutical arithmetic in its various aspects. It comprises the study of proportions, percentage, alligation, reducing and enlarging formulæ, etc., as used in both manufacturing and dispensing pharmacy.

During the second semester the study of the official preparations is begun and carried along through the fluid extracts, extracts, tinctures and other preparations made directly from vegetable drugs.

Textbooks: Sturmer, *Pharmaceutical Arithmetic*; U. S. Pharmacopœia; *National Formulary*.

**Pharmacy 53-54—Pharmaceutical Latin** (for University sophomores and second year College students). Lecture 1 hour, recitation  $\frac{1}{2}$  hour. 3 points. Professor J. S. DORFMAN and instructors.

This course is devoted to the study of pharmaceutical Latin. The work is divided as follows: (A) Study of the principles of etymology and syntax; (B) systematic study of Latin vocabulary including official Latin titles, botanical nomenclature and abbreviations with special reference to the formation of words and their relative importance to pharmacy; and (C) practice in prescription writing, necessary to an intelligent understanding of Latin used in prescriptions.

Textbooks: Dorfman, *Pharmaceutical Latin*; U. S. *Pharmacopœia*; *National Formulary*.

**Pharmacy 55-56—Dispensing pharmacy laboratory** (for second year College students). Laboratory course 3 hours, recitation 1 hour. 5 points. Professors L. N. BROWN, J. S. DORFMAN, and instructors.

The first semester embraces general methods of compounding pills, troches, bacilli, emulsions, ointments and suppositories. It includes theoretical instruction and training in practical work emphasizing the habits of accuracy and neatness.

The second semester deals more especially with prescriptions and includes the compounding and dispensing of the various types requiring technical knowledge and skill. Consideration is given to tablet triturates, mucilages, mixtures, and filling of capsules, cachets, collapsible tubes, etc. General instruction is given in the reading and interpretation of prescriptions, the recognition of the various constituents of their ingredients together with the proper methods and manner of dispensing them.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; Scoville, *The Art of Compounding*; U. S. *Pharmacopœia* and *National Formulary*.

**Pharmacy 57-58—Dispensing pharmacy laboratory** (for University sophomores). Laboratory course 3 hours, recitation 1 hour. 5 points. Professor H. M. CARTER and instructors.

This course is a continuation of the work in the dispensing laboratory of the first year involving thorough laboratory work and instruction in the preparation and dispensing of mixtures, adjusted solutions, pastilles, lamels, compressed tablets, powders, crayons, medicated gauzes, cottons, etc. During the second semester the laboratory practice deals particularly with the various phases of prescription dispensing, such as prescription writing and checking, labeling, wrapping, pricing, and delivery, etc.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes*; Scoville, *The Art of Compounding*; U. S. *Pharmacopœia* and *National Formulary*.

**Pharmacy 59—Manufacturing pharmacy laboratory** (for University sophomores). Laboratory course 4 hours, 16 weeks beginning September 21, 1932. 2 points. Professor H. M. CARTER and instructors.

This course deals with the manufacture of the more important pharmaceutical preparations of inorganic and organic nature thus giving laboratory practice and technique preliminary to the work of the manufacturing laboratory in the third year.

Textbooks: Diekman and Wimmer, *Manufacturing Pharmacy Laboratory Notes*; U. S. *Pharmacopœia*.

**Pharmacy 61-62—Commercial pharmacy** (for University sophomores and second year College students). Lecture 1 hour, recitations 2 hours. 6 points. Professor F. D. LASCOFF.

This course in commercial pharmacy is designed to give the student a practical knowledge of the basic principles that underlie the successful management of a business. Owing to a lack of knowledge of these principles, many pharmacists have failed to achieve the degree of success to which their professional knowledge and training entitle them.

The course consists of all the activities incidental to the opening and operation of a retail drug store, including the choice of location, the elements of business administration and store manage-

ment, insurance, problems of retail merchandising, including the value of discounts, banking, principles of advertising and salesmanship, business correspondence as well as the elements of systematic bookkeeping.

The accounting records are the basic source of data for business management. Accordingly, the course in commercial pharmacy will partially be devoted to the principles underlying the making and interpretation of these records.

**Pharmacy 101-102—Theoretical pharmacy** (for University juniors and third year College students). Lectures 2 hours, recitation 1 hour. 6 points. Professor C. P. WIMMER and instructors.

During the first semester, the study of the U. S. Pharmacopœia and National Formulary galenical preparations is continued and completed. Their methods of preparation are individually studied and the reasons for each step taken in their preparation are given. The second semester is devoted to the study of non-official important galenical, cosmetic and toilet preparations, as well as to the study of the pharmacy of individual substances used in prescriptions.

Textbooks: *U. S. Pharmacopœia; National Formulary V; American Pharmaceutical Association Recipe Book.*

**Pharmacy 103-104—Theoretical dispensing pharmacy** (for third year College students). Lectures 1 hour, recitation 1 hour. 4 points. Professor C. P. WIMMER and instructors.

This course is devoted in the main to the study of the problems encountered by the pharmacist in his prescription work. Prescriptions of all kinds, especially such as present some difficulties, are studied with the aid of lantern slides. The numerous incompatibilities of present-day prescription work are discussed, as well as ways of avoiding or overcoming them. The subject of homeopathy receives the attention it deserves.

Textbooks: Scoville, *The Art of Compounding*; Ruddiman, *Incompatibilities*.

**Pharmacy 105—Manufacturing pharmacy laboratory** (for third year College students). Laboratory course, 16 weeks (two sections alternating). 6 hours. 3 points. Professors L. N. BROWN, J. S. DORFMAN, and instructors.

The work of this course is a continuation of the first year. Many inorganic and organic pharmaceutical preparations and salts are manufactured. In addition, galenicals, toilet preparations, and hospital formulæ are compounded. Especial attention is given systematic training in the identification of many chemicals and galenicals official in the United States Pharmacopœia and National Formulary.

Textbooks: *U. S. Pharmacopœia; National Formulary; National Dispensary; The Pharmaceutical Recipe Book; Diekman and Wimmer, Pharmacy Notes.*

**Pharmacy 106**—Same as *Pharmacy 105* but given during second half of the year.

**Pharmacy 107-108—Dispensing pharmacy laboratory** (for third year College students). Laboratory course, 4 hours. 4 points. Professors L. N. BROWN, J. S. DORFMAN, and instructors.

The work in the dispensing pharmacy laboratory deals particularly with the various phases of prescription dispensing, such as checking, labeling, pricing, and delivery, etc. The all-important subject of chemical, pharmaceutical, and therapeutical incompatibilities is thoroughly studied. The continual introduction of new remedies renders the subject of prescription incompatibilities a never-ending study, and it is the aim of this course to qualify its graduates to keep pace with discovery.

Textbooks: Ruddiman, *Incompatibles in Prescriptions*; Diekman and Wimmer, *Pharmacy Notes*.

**Pharmacy 109-110—Pharmaceutical jurisprudence and business pharmacy** (for University juniors and third year College students). Lectures 2 hours, recitation 1 hour. 6 points. Professor F. D. LASCOFF, Dr. I. NEUSTAEDTER, and visiting lecturers and instructors.

This course is designed to familiarize the student with the fundamentals underlying all law and also with the general provisions of Federal and state laws governing the practice of pharmacy. The various ordinances and regulations having local application will also be studied. Special attention is given to prohibition and anti-narcotic laws and regulations.

Lectures by practical business men will be a feature of the course. This series of lectures will give the student the principles of merchandising from a business man's viewpoint rather than from that of the pedagogue. These lectures, as well as those of the regular course, are aimed to give the student a better understanding of contemporary business problems.

**Pharmacy 111—Practical pharmacy—manufacturing pharmacy laboratory** (for University juniors). Laboratory 13 hours per week for 12 weeks beginning September 19, 1932. 5 points. Professor H. M. CARTER and instructors.

This course includes the manufacture of a number of the more difficult Pharmacopœial and National Formulary preparations, as well as of inorganic and organic medicinal remedies. The work is intended to qualify students for positions in pharmaceutical manufacturing establishments.

Textbook: Wimmer, *Manufacturing Pharmacy Notes*.

**Pharmacy 113—Practical dispensing pharmacy** (for University juniors). Laboratory 3 hours per week for 12 weeks beginning September 19, 1932. 1 point. Professor H. M. CARTER and instructors.

This course embraces a thorough study of the various types of incompatibilities. A large number of prescriptions are compounded which illustrate how some incompatibilities may be avoided or overcome.

Textbooks: Diekman and Wimmer, *Incompatibilities*; Ruddiman, *Incompatibilities in Prescriptions*.

**Pharmacy 151-152—Advanced pharmacy** (for University seniors). Lecture 1 hour. 2 points. Professor C. P. WIMMER.

This course is devoted to a detailed study of pharmaceutical, chemical, and biological assay methods of vegetable and animal drugs, as well as of methods for their identification. It includes the newer methods employed, such as the standardization of tannin-containing drugs by the agglutination test, of saponin-containing drugs by the determination of their haemolytic indices, etc.

A portion of the lecture course is devoted to a study of essential oils, while especial emphasis is laid upon official oils. Those of importance in the essential oil industry are included.

In a series of seminars, students are required to prepare and present before the professors and instructors in the department, papers on current topics of interest pertaining to pharmaceutical and allied sciences.

Textbooks: Fuller, *Analysis of Drugs and Medicines*; U. S. Pharmacopœia; National Formulary V; Gildemeister and Hoffman, *The Volatile Oils*.

**Pharmacy 153-154—Pharmaceutical assaying** (for University seniors). 8 weeks beginning January 23, 1933. Laboratory, 29 hours. 7 points. Professors C. P. WIMMER, H. M. CARTER, and instructors.

This course is intended to prepare the student for work as a drug analyst. The entire class carries out a proximate analysis of a vegetable drug. Individual problems in assay work of the most varied and difficult kind are assigned and the student is, to a considerable extent, left to his own resources. The work embraces assays of galenicals, flavoring extracts, toilet preparations, cosmetics, medicinal gauzes, etc.

Textbooks: Fuller, *Analysis of Drugs and Medicines*; Nelson, *Introduction to the Analysis of Drugs and Medicines*; *Current Literature*.

## CULTURAL COURSES

**English 1-2—English** (for University freshmen). Lectures and recitations, 4 hours. 8 points. Mr. G. D. MCJIMSEY.

This course aims to give collegiate instruction in the fundamentals of structure and style in both practical and imaginative writing.

**History 1-2—American history** (for University freshmen). Lectures and recitations, 3 hours. 6 points. Mr. ———.

After a brief survey of the planting of the English colonies in America, attention is centered on the revolt from British control, the political organization of the new nation, the rise of sectional controversy, and the war for Southern independence. Special emphasis is placed on the economic and social tendencies of the period since 1870.

Texts: Muzzey, *The United States of America*, 1 volume; Fox, *Atlas of American History*.

**German 51-52—German** (for University sophomores). Lectures and recitations, 5 hours. 10 points. Mr. A. H. INGENHUETT.

This is an introductory course in German.

**Mathematics 101—Algebra** (for University juniors). 3 hours. 3 points Winter Session. Mr. G. D. MCJIMSEY.

This course begins with a review of selected topics from elementary algebra and then treats of permutations and combinations, determinants with applications to the solution of linear equations, complex numbers, theory of equations, with reference to the solution of numerical equations of higher degree and partial fractions.

**Mathematics 102—Trigonometry** (for University juniors). 3 hours. 3 points Spring Session. Mr. G. D. MCJIMSEY.

The subject matter of this course includes the trigonometric functions, relations between the functions, functions of several angles, inverse functions, trigonometric equations, logarithms, and the solution of triangles.

**Bibliography 151-152—Pharmaceutical bibliography** (for University seniors). Lectures and conferences 1 hour, 2 points. Professor C. W. BALLARD.

This course will consist of lectures on the source books of chemistry, pharmacy, botany, and cognate sciences and on the periodical literature on the same subjects. At the conferences, special themes will be assigned to each student for research during spare hours.

## THE GRADUATE COURSE

A graduate course of two full years' study in residence is open to graduates with the baccalaureate degree, conferred by this college or other schools of pharmacy maintaining equivalent courses of study. For the present, we are able to accommodate only two students majoring in each of the Departments of Chemistry, Materia Medica, and Pharmacy. Thirty hours' study weekly is required in the department in which the student is majoring, and three hours weekly in each of the other two departments. In the latter departments certain work is obligatory, although an option is allowed the student, between two or more schedules, as follows:



## CHEMISTRY

*Fifth Year*

*Option A*—Lecture courses consisting of **Chemistry 201–202—Structural organic chemistry**. 2 hours. 4 points. Professor H. V. ARNY.

**Chemistry 203–204—Synthesis of newer organic medicinal chemicals**. 1 hour. 2 points. Professor H. H. SCHAEFER.

*Option B*—Laboratory work. **Chemistry 205—Experimental organic chemistry**. 2 periods weekly at 6 hours each during 8 weeks. 3 points. Professors H. V. ARNY and A. TAUB.

This course includes combustions and other organic analyses, molecular weight determinations and other such work as time permits.

*Sixth Year*

*Option A*—The same lecture courses offered to students of the fifth year, provided such courses have not already been offered as fifth year subjects.

*Option B*—**Chemistry 207—Advanced organic analysis**. 2 periods of 6 hours weekly during 8 weeks. 3 points. Professor H. C. KASSNER.

This course includes modern methods of organic radicles; the quantitative determination of elements and radicles not performed in previous years; and lastly, time permitting, special analytical methods such as electrometric titrations and the polarimetry of complex mixtures.

## MATERIA MEDICA

*Fifth Year*

*Option A*—**Materia Medica 201—Analysis and determination of cryptogamous and phanerogamous plants**. Laboratory course, two periods weekly of 6 hours each during 8 weeks. 3 points. Professors H. H. RUSBY and F. HART.

*Option B*—**Materia Medica 203—Advanced bacteriology**. Laboratory and conferences, 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor F. HART.

The determination of types through special cultural and staining methods.

*Option C*—**Materia Medica 205—Food microscopy**. Laboratory and conferences, 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor C. W. BALLARD.

A systematic study of the various classes of foodstuffs in which adulteration can be determined by microscopical methods.

*Sixth Year*

*Option A*—(To be offered only if *Option A* of the fifth year has been carried. If not, that work will constitute *Option A* of the sixth year.) **Materia Medica 207—The literature and methods of research in vegetable taxonomy**. Conference and laboratory, two periods weekly of 6 hours each during 8 weeks. 3½ points. Professors H. H. RUSBY and F. HART.

*Option B—Materia Medica 209—Bacteriology.* Conference and laboratory, 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor F. HART.

The preparation of antitoxic products in media and their cultivation through animal experimentation.

*Option C—Materia Medica 211—Chemical microscopy.* Conference and laboratory, 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professors C. W. BALLARD and H. TAUB.

A study of the microchemical procedures involved in the use of the microscope as an aid in chemical analysis.

#### PHARMACY

##### *Fifth Year*

*Option A—Pharmacy 201—Assay and analysis of official and non-official galenicals and other medicinally compounded preparations.* Lectures and laboratory work. 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor C. P. WIMMER.

*Option B—Pharmacy 203—Manufacture, composition, and analysis of toilet preparations and cosmetics.* Lectures and laboratory work. 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor C. P. WIMMER.

##### *Sixth Year*

*Option A—Pharmacy 205—Examination and analysis of incompatible mixtures with special reference to prescriptions.* Laboratory work only. 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor C. P. WIMMER.

*Option B—Pharmacy 207—Examination and analysis of essential oils, flavoring extracts, and perfume materials.* Lecture and laboratory work. 2 periods weekly of 6 hours each during 8 weeks. 3½ points. Professor C. P. WIMMER.

#### SUBMISSION OF THESIS

At least fifteen days before the first day on which University examinations are scheduled to be held, the candidate shall submit three finished copies of his or her thesis, in typewritten form, to the professor in whose department the candidate is majoring.

The awarding of the degree shall be dependent upon the approval of the thesis, and the results of an oral Faculty examination of the candidate.

#### SUMMER LABORATORY COURSES

These courses are designed to assist students who have failed at the spring examinations to prepare for those of the fall, and to provide instruction for special students in the use of the microscope, in the examination of drugs, and in pharmaceutical processes.

It will thus be seen that the work is not definitely fixed, but is made sufficiently elastic to allow it to be adapted to the special needs of individuals.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

#### SUMMER LABORATORY COURSES 1932

##### *First, Second, and Third Year College Classes*

- June 6 to June 25—Department of Chemistry.
- June 27 to July 16—Department of Materia Medica.
- July 17 to August 6—Department of Pharmacy.

#### SUMMER LABORATORY COURSES 1933

##### *First, Second, and Third Year College Classes*

- June 5 to June 24—Department of Chemistry.
- June 26 to July 15—Department of Materia Medica.
- July 17 to August 5—Department of Pharmacy.

#### UNIVERSITY CLASSES

University students failing in laboratory courses will be advised by the Registrar regarding the summer laboratory schedules.

#### EVENING COURSES

These courses of instruction, although they cannot be substituted for any of our regular work leading to degrees, have proven of great benefit to those who cannot attend during the day, and to those who desire to pursue special courses of study. General educational credits are not allowed for them. They are designed for special students as well as for members of our regular classes.

Candidates may be admitted at any time during the course, at the discretion of the director of the course, but only those who have attended at least 80 per cent of all exercises and who pursue in a satisfactory manner the courses for which they are registered will receive certificates.

The courses are offered on Monday, Tuesday, and Friday of each week during the periods from Monday, October 3, 1932, to January 13, 1933, and from January 16, 1933, to Friday, May 5, 1933.

The Registrar's office will be open daily for registration from 10 a. m. to 4 p. m. and on Monday, Tuesday, and Friday evenings from 7 to 8 o'clock, during the first two weeks of each semester.

Fees are payable in advance and are not returnable. A registration fee of \$6 is required of each student in addition to the fees stated below.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

The following courses are offered:

## DEPARTMENT OF CHEMISTRY

**Evening Chemistry 1-2—Pharmaceutical qualitative analysis.** 1 hour classroom and 2 hours laboratory each week. Fee \$25 each semester; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7:30-10:30 p. m.

Lecture: F., 7:30-8:20 p. m.

Laboratory: F., 8:30-10:30 p. m.

This course, which presupposes a knowledge of general pharmaceutical chemistry is designed to train students in the qualitative tests for metal-ions included in the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

**Evening Chemistry 3-4—Pharmaceutical qualitative analysis.** 1 hour classroom and 2 hours laboratory work each week. Fee \$25 each semester; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7-10 p. m.

Laboratory: F., 7-9 p. m.

Lecture: F., 9:10-10 p. m.

This course is a continuation of *Evening Chemistry 1-2* with particular reference to the U. S. P. tests for acid-ions. (Conditional on the enrollment of ten students.)

**Evening Chemistry 5-6—Pharmaceutical volumetric analysis.** 1 hour classroom and 2 hours laboratory work. Fee \$25 each semester; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7-10:30 p. m.

This course is designed to give training in the volumetric assays of the United States Pharmacopœia. (Conditional on the enrollment of ten students.)

**Evening Chemistry 7—Examination of urine.** First semester, 1 hour lecture and 2 hours laboratory work. Fee \$25; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7:15-10:30 p. m.

Lecture: F., 7:20-8:20 p. m.

Laboratory: F., 8:30-10:30 p. m.

It should be noted that to qualify for "Director" of a laboratory, as defined by the Board of Health of the City of New York, a degree at least the equivalent of a B.S., is required.

In this course the qualitative and quantitative chemical tests of normal and pathological urine are studied; also the preparation and standardization of the necessary reagents. (Conditional upon the enrollment of twenty students.)

**Evening Chemistry 8—Examination of urine.** Second semester 1½ hours lecture and 2 hours laboratory work. Fee \$25; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7:30-10 p. m.

Lecture: F., 7:30-8 p. m.

Laboratory: F., 8:20-10 p. m.

In this course, a continuation of *Evening Chemistry 7*, the gravimetric, polariscopic, colorimetric, and microscopic examination of urine is studied. (Conditional upon the enrollment of twenty students.)

**Evening Chemistry 9-10—Newer remedies.** 1 hour lecture each week throughout the year. Fee \$30. Professor H. H. SCHAEFER.

F., 8:30-9:30 p. m.

The aim of this course is to give the graduate pharmacist an opportunity to become familiar with the chemistry of many "recent" remedies generally classified as "synthetics" which are prescribed by physicians but which are not official. Most of these preparations are rather recent additions to our materia medica and many of them are covered by patents. The products are not selected because of their medicinal merit but rather because of the frequency with which they are prescribed. Not only will the chemistry of these preparations be considered, but whenever possible, original packages will be shown to the students and the names of their manufacturers given. Conditional on enrollment of twenty students.

## DEPARTMENT OF MATERIA MEDICA

**Evening Materia Medica 1-2—Principles and practice of bacteriology.**

1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester; \$10 breakage deposit. Professor F. HART and assistants.

Tu., 7-10 p. m. Lectures: 7-8 p. m. Room 42, Pharmacy.

Laboratory: 8-10 p. m.

This course includes the bacterial examination of sputum, excreta, water, air, milk, and ice.

Special attention is given to the standard methods of disinfection and sterilization. The major portion of the time is devoted to the cultivation, morphology, and staining properties leading to the identification of the more common pathogenic bacteria.

Conditional on the enrollment of ten students.

**Evening Materia Medica 3-4—Blood analysis.** 1 hour lecture and 2 hours laboratory work each week. Fee \$40 each semester. Professor H. TAUB and assistants.

M., 7-10 p. m. Lecture: 7-8 p. m.

Laboratory: 8-10 p. m.

First semester: Preparation and study of blood smears in health and disease; total and differential counts; special pathology.

Second semester: Blood chemistry, including non-protein and urea nitrogen determinations, sugar, creatinin, uric acid, CO<sub>2</sub>-combining power, chlorides, calcium, cholesterol, and other constituents; hemoglobin estimation, coagulation time; establishing and operating a laboratory.

Conditional on the enrollment of ten students.

**Evening Materia Medica 6—Parasitology.** 1 hour lecture and 2 hours laboratory work each week, second semester. Fee \$40; \$10 breakage deposit. Professor F. HART and assistants.

Tu., 7-10 p. m.

In this course chief attention is given to changes from normal to abnormal blood due to parasites as well as the more pathogenic blood and intestinal parasites.

Time is also allotted to the mycology of foods.

Conditional on the enrollment of 10 students.

**Evening Materia Medica 7-8—Microbiology.** 1 hour of lecture and demonstration each week throughout the year. Fee \$30. Professor F. HART.

M., 7:30-8:30 p. m.

This course includes the methods of manufacture, standardization, administration, and dosage of the commercial biological and bacteriological products and derivatives. Consideration is likewise given to the various methods of sterilization and disinfection as well as the principles of serology and immunology.

Conditional on enrollment of twenty students.

**Evening Materia Medica 9-10—Pharmaceutical sundries.** 1 hour lecture each week throughout the year. Fee \$30. Professor C. W. BALLARD.

M., 8:30-9:30 p. m.

While the retail pharmacist handles many items which are included under the general heading of sick-room supplies, he generally has little opportunity for systematic study of these articles and this is particularly true under present-day conditions. The object of this course of lectures is to acquaint him with the manufacture, differences and applications of bandaging and dressing materials, rubber sundries, glass and metal appliances, sutures and ligatures and the miscellaneous articles stocked in the average retail pharmacy and intended for physicians' or household use. The complicated and specialized types of surgical instruments and appliances will not be considered.

Conditional on enrollment of twenty students.

#### DEPARTMENT OF PHARMACY

**Evening Pharmacy 1-2—Manufacturing pharmacy.** 1½ hours lectures and 1½ hours laboratory work each week. Fee \$35 each semester. Professor L. N. BROWN and assistants.

Tu., 7:30-10:30 p. m.

This course is of value to those desiring to prepare and place upon the market lines of specialties. The course is elastic and designed to meet individual requirements. One may take up the study of an entire series of preparations, or any one preparation in considerable detail.

Conditional upon the enrollment of ten students.

**Evening Pharmacy 3-4—Manufacture of cosmetics and toilet preparations.** 1 hour lecture and 2 hours laboratory work each week. Fee \$35 each semester. Professor C. P. WIMMER and assistants.

Tu., 7:30-10:30 p. m. Main Lecture Hall.

This course affords a thorough review of the entire subject of cosmetics and toilet preparations, their composition and manufacture. Face lotions, hair dyes and other hair preparations, face powders and paints, cream (greasy, non-greasy and vanishing), toothwashes and powders, etc., are studied and certain types are manufactured.

Conditional upon the enrollment of ten students.

A summary of the lecture topics will be furnished upon request.

**Evening Pharmacy 5-6—Perfume materials and perfumery.** 1 hour lecture and 2 hours laboratory work each week. Fee \$50 each semester. Professor C. P. WIMMER and assistants.

M. at 7 p. m. Main Lecture Hall.

This course is of value to persons employed in essential oil houses and perfume manufacturing establishments and others desiring to enter this field. The lectures are illustrated with lantern slides and samples of the materials under discussion are exhibited. The laboratory work comprises the determination of physical constants, testing for impurities, etc. A systematic course in nose-training is included.

A summary of the course will be mailed upon request.

Conditional on the enrollment of ten students.

**Evening Pharmacy 7-8—Ampuls and medicated units.** 1 hour lecture each week. Fee \$30 entire course. Professor H. M. CARTER.

F., 7:30-8:30 p. m.

This course provides for the graduate pharmacist a thorough training in the principles of ampul medication both from the theoretical and practical viewpoints. Briefly, it considers the history, the advantages of parenteral administration, the forms and sizes of ampuls of American and foreign makes, together with the actual demonstration of ampul manufacture including glass blowing, filling, sealing, sterilization, etc. The National Formulary ampuls and products of various manufacturers are exhibited and discussed in detail paying strict attention to methods of packaging, storing and dispensing.

Conditional upon the enrollment of twenty students.

THE ALUMNI ASSOCIATION OF THE COLLEGE OF  
PHARMACY OF THE CITY OF NEW YORK

OFFICERS AND COMMITTEES, 1932-1933

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J. H. HECKER, 1934.

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L. N. BROWN, 1934.

VITO CALCAGNO, 1933.

V. K. COMMONS, 1935.

F. D. LASCOFF, 1934.

JULIAN RONSHEIM, 1935.

F. J. POKORNY, 1935.

*Committee on Papers and Queries*

C. P. WIMMER

ADOLPH HENNING

JOHN H. HECKER

*Delegates to the American Pharmaceutical Association*

GEORGE C. DIEKMAN

C. P. WIMMER

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*Delegates to the New York State Pharmaceutical Association*

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FRANK V. DAMTOFT

## ENDOWMENTS

For one hundred and three consecutive years the College of Pharmacy of the City of New York has maintained its annual courses of instruction for the education and training of pharmacists. That this instruction has exhibited a steady extension and improvement is clearly recorded in the successive editions of its annual prospectus. That such a result could not have been attained by the use of students' fees, unaided by other resources, will be readily understood by all who have had experience in educational administration. Such assistance may be said to have begun with the generous contribution of free instruction services by Professors Edward R. Squibb, Charles F. Chandler, and others, in the early history of the institution, and to have continued with the services of their successors, and the unpaid management of officers and Trustees. At various times financial crises have been met by generous donations of money by officers and members, and occasionally by outside friends. In some cases, as when new quarters were to be secured, a new building was to be erected, or herbarium or apparatus to be bought, the sums thus contributed have been large, considering the resources of those contributing.

As indicated in the preceding pages of this Announcement, in addition to the College Course of three years, leading to the degree of Ph.G. there is now provided a University Course of four years, leading to the degree of B.S. in Pharmacy.

It is not to be expected that the scanty revenue derived from the fees of the small number of students who will pursue these advanced studies will begin to provide the necessary means for meeting the additional expenditures. The College must undertake these burdens as its contribution to pharmaceutical education.

Under such conditions, it is felt that an appeal should be made to those who are interested in promoting educational development in America to give their favorable consideration and to lend their financial aid to the present efforts of the College.

Since the actual instruction work of the College calls for the expenditures of our entire income received from students' fees, it follows that we are compelled, like other schools, to seek other sources of income for meeting unusual expenses.

There are also a number of ways in which comparatively small contributions will be immediately productive of great good in specific directions, and several of these are discussed below.

## LIBRARY MAINTENANCE

The library facilities required by men engaged in advanced studies are necessarily much more extensive than those now provided by the College. The research work in which such men will engage will call for a full supply of works of reference, not only in pharmaceutical subjects, but in the sciences contributory to pharmacy. Generous friends of the College, and one such in particular, have made frequent and extensive contributions to the library, but it is highly desirable that an endowment be established that will yield a permanent annual fund of \$500 for such a purpose.



## APPARATUS

The College, thanks to the generosity of the late Mr. Edward Kemp, possesses a splendid working equipment of physical apparatus, suitable for the ordinary purposes of pharmaceutical education. The advanced work of graduate students will require not only extensive additions, but continuous expenditures for new designs in order to keep pace with discovery and improvement.

An endowment of from \$5,000 to \$10,000 would admirably meet this demand.

## MUSEUM

With the exception of the National Museum at Washington, there is no extensive pharmaceutical or materia medica museum in this country. Small museums exist in Philadelphia, Detroit, Cincinnati, at the New York Botanical Garden and elsewhere, but nowhere is there a museum properly comparable with those in London and Berlin. Civic pride, if no other consideration, should suffice to secure the establishment in New York City of a museum proportionate with the importance of the city as the port of entry for more than three fourths of the drugs received into the United States. There are, however, other considerations of far greater importance. Scarcely a week passes without more than one inquiry from importers, brokers or merchants, and even from the city and Federal departments, for unobtainable information concerning commercial articles of this class.

There should be some institution to which such inquiries could turn with reasonable certainty of an accurate reply. Furthermore, the ambition to supply Doctors of Pharmacy who are competent to meet all demands made upon them, even for the discovery of desired unknown facts, renders it imperative that a storehouse of materials for investigation should be available. The ideal location for such a museum is with the department of pharmacy of a strong and active university.

Such a museum involves more than a mere collection of labeled articles in cases. It calls for a comprehensive plan providing for future accessions, and for investigating the utility of new products. This calls for a curator with an encyclopedic knowledge of the subject, and qualified to pursue original researches. Such an institution, thus equipped, could provide a continuous supply of original contributions in economic botany, connected upon the one side with sources of sound scientific information and authentication, and upon the other with the material welfare of our people.

A more creditable and permanent monument to its donor could scarcely be conceived. To establish such a museum, and also to provide properly for its care and maintenance, would require from \$100,000 to \$150,000.

## ADDITIONAL PROFESSORSHIPS

The establishment of a number of lecture courses to be served by specialists in their respective subjects is an essential requisite in the work of the final years of an advanced course. Perhaps the most important of such subjects is the history of chemistry and pharmacy. The provision of even a short series of lectures would do much to point the way to investigation in the light of former achievement.

Those desiring to contribute toward any of the purposes named, or others in which they may be interested, will upon request be supplied with a form which may be used for the purpose.

## REGISTER OF GRADUATES

### BACHELORS OF SCIENCE IN PHARMACY, OCTOBER 28, 1931

Benjamin, Irving  
R. F. D. No. 1, Bedford, N. Y.

Keilin, Harry  
2800 Bronx Park East, New York, N. Y.

Massarsky, Solomon  
16 Second Street, Weehawken, N. J.

Stephanou, Eli  
33 Thames Street, Norwich, Conn.

(4)

### PHARMACEUTICAL CHEMISTS, OCTOBER 28, 1931

Marcus, Irving  
791 Troy Avenue, Brooklyn, N. Y.

Fauci, Stephen Antonio  
1669 79th Street, Brooklyn, N. Y.

(2)

### GRADUATES IN PHARMACY, OCTOBER 6, 1931

Boghosian, Paul Der  
488 New York Avenue, Union City, N. J.

Braswell, James Leroy  
265 Flatbush Avenue, Brooklyn, N. Y.

Capillo, Joseph Bruno  
8717 94th Street, Woodhaven, N. Y.

Charlip, Abraham M.  
583 Van Sicklen Avenue, Brooklyn, N. Y.

Dworkowitz, Jesse  
420 Avenue S, Brooklyn, N. Y.

Geller, Isidore Benjamin  
1218 Hoe Avenue, New York, N. Y.

Homer, Theodore Howard, Jr.  
207 West 140th Street, New York, N. Y.

Horowitz, Samuel Louis  
558 Vermont Street, Brooklyn, N. Y.

Williams, Clifford Albert  
163 West 121st Street, New York, N. Y.

(9)

### BACHELORS OF SCIENCE IN PHARMACY, JUNE 2, 1931

Betzer, Clifford William  
194-54 One hundred and fourteenth Road,  
St. Albans, N. Y.

Canepa, John Joseph  
111 Anderson Avenue, Scarsdale, N. Y.

Carlat, Bernard  
1914 East 18th Street, Brooklyn, N. Y.

Lichtenberg, Raymond  
615 Hudson Street, Hoboken, N. J.

Nochimow, Eliezer  
489 Willoughby Avenue, Brooklyn, N. Y.

Sadinsky, Hyman Benjamin  
60 Maple Street, Norwich, Conn.

Schmid, Frederick William  
Hillsdale Avenue, Hillsdale, N. J.

Seligman, Morris William  
317 East 27th Street, New York, N. Y.

Stevens, Eli  
1104 59th Street, Brooklyn, N. Y.

(9)

### PHARMACEUTICAL CHEMISTS, JUNE 2, 1931

Cassano, Caesar  
2147 Washington Avenue, New York, N. Y.

Chesler, Morris  
4338 Gunther Avenue, New York, N. Y.

Cohen, Gertrude  
93 Palisade Avenue, Hudson Heights, N. J.

Fehder, Paul  
107-21 Union Hall Street, Jamaica, N. Y.

Feinberg, Solomon  
2820 West 36th Street, Brooklyn, N. Y.

Goldberg, Meyer  
1125 Noble Avenue, New York, N. Y.

Levsky, William Samuel  
2818 Heath Avenue, New York, N. Y.

Lipschitz, Leo  
7007 19th Avenue, Brooklyn, N. Y.

Mar, George Kaye  
296 Ellen Street, Winnipeg, Manitoba,  
Canada

Mehlsak, Harry Nathan  
1985 Creston Avenue, New York, N. Y.

Merrig, Harry Louis  
3568 North 163d Street, Flushing, N. Y.

Miller, Benjamin  
91 Center Street, Ellenville, N. Y.

Orfuss, Abraham Jack  
2920 West 27th Street, Brooklyn, N. Y.

Ronsheim, Julian  
808 West End Avenue, New York, N. Y.

Schwartz, Israel Charles  
3 Manitou Avenue, Poughkeepsie, N. Y.

Smith, Henry  
8552 Park Pleasant Place, Jamaica, N. Y.

Vigdarowitz, Martin  
65 East 99th Street, New York, N. Y.

(17)

GRADUATES IN PHARMACY, MAY 28, 1931

Abramson, Jacob  
15 Stevens Street, White Plains, N. Y.

- Achiron, Harold  
54 Lewis Avenue, Brooklyn, N. Y.
- Adelman, Rubin  
761 Elton Avenue, New York, N. Y.
- Aloisi, Frank  
1251 Ward Avenue, New York, N. Y.
- Anderson, Ometta Catharyn  
706 Terrace Place, Muskogee, Okla.
- Armband, Max  
75 East 4th Street, New York, N. Y.
- Arnowitz, Barnett  
3127 Seymour Avenue, New York, N. Y.
- Avstreich, Albert  
503 West 176th Street, New York, N. Y.
- Barile, Emerico  
235 West 67th Street, New York, N. Y.
- Bateman, Edward Henry  
36 North Street, Pulaski, N. Y.
- Bauer, Charles William  
249 Post Avenue, Westbury, N. Y.
- Beghin, Frank A.  
336 East 107th Street, New York, N. Y.
- Belfer, Samuel  
413 Belmont Avenue, Newark, N. J.
- Berkowitz, Aaron Joseph  
106 West 61st Street, New York, N. Y.
- Berlin, Joseph  
106 Quincy Street, Passaic, N. J.
- Berliner, Meyer  
6 Margot Place, Great Neck, N. Y.
- Bernstein, Sydney  
2111 Hughes Avenue, New York, N. Y.
- Birdsloe, Kent Bishop  
Lacona, N. Y.
- Blank, George  
20 East Gun Hill Road, New York, N. Y.
- Bloom, Albert Sidney  
58 Fairmount Street, Norwich, Conn.
- Bloom, Isidore  
708 East 6th Street, New York, N. Y.
- Bookstaber, Leo  
32-42 33d Street, Long Island City, N. Y.
- Boxer, Louis  
427 East 170th Street, New York, N. Y.
- Brown, Charles Lloyd  
2054 Fletcher Avenue, Fort Lee, N. J.
- Buono, Joseph  
30 Cornelia Street, New York, N. Y.
- Calabrese, Theodore Vincent  
3719 Foster Avenue, Brooklyn, N. Y.
- Calleo, Nicholas Benjamin  
22 Van Wort Place, Jersey City, N. J.
- Caprio, Ralph  
140 Parker Street, Newark, N. J.
- Carpinelli, Michael Joseph  
281 Linden Avenue, Jersey City, N. J.
- Carroll, Harry  
570 Schenck Avenue, Brooklyn, N. Y.
- Caruso, Mario  
491 Warren Street, Brooklyn, N. J.
- Cassera, Grace Leona  
1531 68th Street, Brooklyn, N. Y.
- Catozzio, Peter  
729 Adams Street, West New York, N. J.
- Cecere, Natale  
431 28th Street, Woodcliff, N. J.
- Chefetz, Hyman Herman  
540 East 5th Street, New York, N. Y.
- Chomsky, Isidore  
1443 38th Street, Brooklyn, N. Y.
- Christmann, Frederick Walter  
34 Oak Street, Valley Stream, N. Y.
- Cohen, Ahe  
2147 Washington Avenue, New York, N. Y.
- Cohen, Alexander  
486 Kosciusko Street, Brooklyn, N. Y.
- Cohen, Charles  
111 Tudor Place, New York, N. Y.
- Cohen, David  
100 Wegman Parkway, Jersey City, N. J.
- Cohen, Frank  
2216 Douglass Street, Brooklyn, N. Y.
- Cohen, Herman  
1662 45th Street, Brooklyn, N. Y.
- Cohen, Joseph  
110 Jersey Avenue, Port Jervis, N. Y.
- Cohen, Maximilian  
61 East 99th Street, New York, N. Y.
- De Mucci, Frank Robert  
40-36 97th Street, Corona, N. Y.
- Edelstein, Isadore  
305 East Mine Street, Hazelton, Pa.
- Eichler, Julian  
31-11 85th Street, Jackson Heights, N. Y.
- Eichner, Jerome  
51 Farrington Street, Flushing, N. Y.
- Eicken, Nathan  
180 Mercer Street, Jersey City, N. J.
- Eisenberg, Robert  
1424 Parker Street, New York, N. Y.
- Epstein, Marvin Maurice  
110 Walnut Street, Springfield, Mass.
- Epstein, Paul  
72 Jackson Avenue, Jersey City, N. J.
- Evans, Max  
364 Quincy Street, Brooklyn, N. Y.
- Feigelson, Irving  
2838 West 19th Street, Brooklyn, N. Y.
- Feinberg, Irving Bernard  
496 Cleveland Street, Brooklyn, N. Y.
- Ferrara, Vincent  
1714 71st Street, Brooklyn, N. Y.
- Fialk, Robert  
198 Hopkins Avenue, Jersey City, N. J.
- Fichiera, Michael  
1511 Castlehill Avenue, New York, N. Y.

- Ficks, Jacob  
8675 Bay 16th Street, Brooklyn, N. Y.
- Fishberg, Murray Leonard  
153 Morton Place, New York, N. Y.
- Fitzer, Aaron  
1166 Theriot Avenue, New York, N. Y.
- Fox, Jacob  
162 Lee Avenue, Brooklyn, N. Y.
- Frank, Jacob  
493 East 135th Street, New York, N. Y.
- Frankel, David  
1156 Eastern Parkway, Brooklyn, N. Y.
- Frankel, Leonard Robert  
764 Trinity Avenue, New York, N. Y.
- Frankel, Sidney  
744 Hudson Avenue, West New York, N. J.
- Freed, Israel  
285 Van Buren Street, Brooklyn, N. Y.
- Friedberg, Alexander  
61 East 95th Street, New York, N. Y.
- Friedland, Peter Robert  
3999 Dickinson Avenue, New York, N. Y.
- Gaal, Albert George  
574 Manhattan Avenue, Brooklyn, N. Y.
- Garrambone, Carmelo Joseph  
25-27 33d Street, Long Island City, N. Y.
- Gellis, Joseph  
156 East 171st Street, New York, N. Y.
- Gerson, Alex  
557 Kosciusko Street, Brooklyn, N. Y.
- Ginsberg, Asna Mendelevska (Mrs.)  
53 West Tremont Avenue, New York, N. Y.
- Gise, Meyer  
1862 Bay Ridge Parkway, Brooklyn, N. Y.
- Giuliani, Arthur J.  
246½ Central Avenue, Union City, N. J.
- Glazer, Harry  
1857 Washington Avenue, New York, N. Y.
- Glick, William Joseph  
1694 Coventry Road, Cleveland, Ohio
- Gline, William  
1701 Eastburn Avenue, New York, N. Y.
- Godlin, Abraham  
Woodbourne, N. Y.
- Gold, Joseph  
1434 Bryant Avenue, New York, N. Y.
- Goldstein, Martin  
505 Bergen Avenue, Jersey City, N. J.
- Goldstein, Max  
871 Longwood Avenue, New York, N. Y.
- Gottlieb, George  
310 East 30th Street, New York, N. Y.
- Grant, Raymond Lorenzo  
120 Wait Street, Ithaca, N. Y.
- Greenfader, Morris Benjamin  
2223 62d Street, Brooklyn, N. Y.
- Gutes, Morris Charles  
17-27 Van Sicklen Avenue, Brooklyn, N. Y.
- Halper, Arthur Matthews  
555 Westminster Avenue, Elizabeth, N. J.
- Halper, Lewis  
1208 Maple Avenue, Peekskill, N. Y.
- Halperin, Irving Max  
419 Ocean Avenue, Jersey City, N. J.
- Hamann, George Peter Dietrich  
398 Himrod Street, Brooklyn, N. Y.
- Hartman, Edward  
123 Cornelia Street, Brooklyn, N. Y.
- Herbst, Arthur Stephan  
342 East 77th Street, New York, N. Y.
- Hofmann, Henry Conrad  
305 Dill Place, Brooklyn, N. Y.
- Horowitz, Alex  
79 East 107th Street, New York, N. Y.
- Horowitz, Barnett  
811 Avenue U, Brooklyn, N. Y.
- Hubbard, Earl Edmund  
126 Second Avenue, Bay Shore, N. Y.
- Israel, Samuel  
563 Bedford Avenue, Brooklyn, N. Y.
- Jacaruso, John  
150 Sullivan Street, New York, N. Y.
- Jacobs, Herman  
296 Rochester Avenue, Brooklyn, N. Y.
- Jacobs, Meyer Jack  
109 East Broadway, New York, N. Y.
- Jaffe, Max  
Liberty, N. Y.
- Kaplan, Samuel  
520 Medbury Avenue, Detroit, Mich.
- Kaufman, Michael Israel  
636 East 13th Street, New York, N. Y.
- Kaufman, Sydney William  
27 River Road, Fair Lawn, N. J.
- Keller, Murray  
312 Madison Street, New York, N. Y.
- Kerewsky, Isidor  
360 Garden Avenue, Mt. Vernon, N. Y.
- Koslowsky, Harry  
1439 East 37th Street, Brooklyn, N. Y.
- Kramer, Benjamin  
1143 Longfellow Avenue, New York, N. Y.
- Kugelmass, Samuel  
155 South 4th Street, Brooklyn, N. Y.
- Lampert, Samuel  
447 Powell Street, Brooklyn, N. Y.
- Last, Ben  
286 Brooklyn Avenue, Brooklyn, N. Y.
- Lehrer, Morris  
186 Riverdale Avenue, Brooklyn, N. Y.
- Lepard, Thomas Horley  
270 Seaman Avenue, New York, N. Y.
- Levine, Hyman Israel  
433 Rockaway Parkway, Brooklyn, N. Y.
- Levine, Jonas  
2282 East 7th Street, Brooklyn, N. Y.
- Levine, Samuel  
801 West 181st Street, New York, N. Y.

- Levitt, Morris  
8950 Woodhaven Boulevard, Woodhaven,  
N. Y.
- Lewitus, Richard  
1517 Walton Avenue, New York, N. Y.
- Lipetz, Morris  
Elton Avenue, Riverhead, N. Y.
- Lipschitz, Edward  
236 East 82d Street, New York, N. Y.
- Liss, Max  
327 East 20th Street, New York, N. Y.
- Lopez, Anacleto  
418 West 36th Street, New York, N. Y.
- Loss, Margaret  
1581 Fulton Avenue, New York, N. Y.
- MacCurran, James Francis  
12 3d Street, Weehawken, N. J.
- McSharry, William  
10 Dashby Court, Rockaway Beach, N. Y.
- Madansky, Nathan  
2919 Jordon Street, Bayside, N. Y.
- Malmud, Mayer M.  
4320 Sixteenth Avenue, Brooklyn, N. Y.
- Mancini, Thomas Anthony  
316 East 29th Street, New York, N. Y.
- Marino, Frank Ermando  
20-23 120th Street, College Point, N. Y.
- Marks, Edward Herman  
400 East Raynor Avenue, Syracuse, N. Y.
- Mascellaro, Hector Edward  
111 Taylor Street, Long Island City, N. Y.
- Matthes, Herbert Max  
209 12th Street, College Point, N. Y.
- Megna, John  
1080 Sutter Avenue, Brooklyn, N. Y.
- Mersel, Joseph  
215 West 10th Street, New York, N. Y.
- Meyer, Morris  
639 East 13th Street, New York, N. Y.
- Meyerson, Abraham  
1041 Elder Avenue, New York, N. Y.
- Miller, Abraham  
197 Van Buren Street, Brooklyn, N. Y.
- Miller, Benjamin  
1347 40th Street, Brooklyn, N. Y.
- Mishler, Benjamin  
52 Belmont Avenue, Brooklyn, N. Y.
- Monestersky, Morris  
983 57th Street, Brooklyn, N. Y.
- Nelson, Isidore Ben  
813 Centre Street, Bowling Green, Ky.
- Newer, Joseph George  
1514 Lincoln Place, Brooklyn, N. Y.
- Ochitell, Morris  
2921 West 36th Street, Brooklyn, N. Y.
- Oppenheim, Emanuel  
4902 Fort Hamilton Parkway, Brooklyn,  
N. Y.
- Palanzo, Charles Rocco  
134 Willow Street, Yonkers, N. Y.
- Perry, Harold  
123 Rockaway Parkway, Brooklyn, N. Y.
- Perry, Sidney  
123 Rockaway Parkway, Brooklyn, N. Y.
- Perveler, Martin Leo  
1710 Hoe Avenue, New York, N. Y.
- Petziner, Norman  
1225 Seneca Avenue, New York, N. Y.
- Pomerantz, Max  
150 East 2d Street, New York, N. Y.
- Ponticello, Francis Anthony  
52 Council Street, Rochester, N. Y.
- Posner, Sidney  
923 Fox Street, New York, N. Y.
- Razzo, Frances Mary Amelia  
125 Second Avenue, New York, N. Y.
- Ricciardi, Ralph  
1957 West 4th Street, Brooklyn, N. Y.
- Risch, Samuel Saul  
3052 Lasalle Avenue, New York, N. Y.
- Riveles, George  
63 East 100th Street, New York, N. Y.
- Riveles, Julius  
725 East 9th Street, New York, N. Y.
- Rocco, Emilio John  
27 St. Edwards Street, Brooklyn, N. Y.
- Rosenberg, Solomon  
3340 71st Street, Jackson Heights, N. Y.
- Rosenberg, William Nathaniel  
838 West End Avenue, New York, N. Y.
- Rothleder, Paul  
2869 West 27th Street, Brooklyn, N. Y.
- Rubin, Paul  
630 Garden Street, Hoboken, N. J.
- Rubenstein, Jack  
299 Mt. Eden Avenue, New York, N. Y.
- Sacco, John G.  
2 Ocean Avenue, Deal, N. J.
- Saia, Joseph John  
7 Court Street, Astoria, N. Y.
- Savitch, Milton  
334 East 15th Street, New York, N. Y.
- Schneider, Nathan  
283 Liberty Avenue, Brooklyn, N. Y.
- Schwartz, Abraham  
1533 Minford Place, New York, N. Y.
- Schwartz, Isadore  
69 Liberty Place, Weehawken, N. J.
- Schwartz, Max  
624 Hopkinson Avenue, Brooklyn, N. Y.
- Schwartz, Sidney  
256 Rivington Street, New York, N. Y.
- Seidel, Leo  
1561 West 11th Street, Brooklyn, N. Y.
- Seppi, Dominick  
319 3d Street, Fairview, N. J.
- Shefkowitz, Julius L.  
1203 Westchester Avenue, New York, N. Y.

- Silberman, Joel  
585 East 169th Street, New York, N. Y.
- Silverman, Hyman  
424 Chester Street, Brooklyn, N. Y.
- Simon, Irving Edward  
878 East 176th Street, New York, N. Y.
- Simon, Moses Benjamin  
137 Mansion Street, Poughkeepsie, N. Y.
- Small, Julius  
1575 Madison Avenue, New York, N. Y.
- Snyder, Sol  
45 Pinehurst Avenue, New York, N. Y.
- Soldo, Americo  
419 East 160th Street, New York, N. Y.
- Stein, Irving  
206 West 99th Street, New York, N. Y.
- Stein, Solomon Charles  
1674 East 13th Street, Brooklyn, N. Y.
- Steir, Edward  
172 East 7th Street, New York, N. Y.
- Strongin, Jack  
1933 Union Street, Brooklyn, N. Y.
- Tabachnick, William  
1709 Bathgate Avenue, New York, N. Y.
- Tannenbaum, Nathan  
52 Bay 22d Street, Brooklyn, N. Y.
- Tenebra, Mary  
4057 97th Street, Corona, N. Y.
- Tiersfeld, Nathan  
14 East 108th Street, New York, N. Y.
- Tomashoff, Sidney  
4502 Sixteenth Avenue, Brooklyn, N. Y.
- Tortora, Anthony  
194 Cambridge Avenue, Jersey City, N. J.
- Uva, Nicholas  
138 Sackman Street, Brooklyn, N. Y.
- Valenti, Joseph  
378 Fulton Avenue, Jersey City, N. J.
- Van Beuren, John Horace  
81 Chambers Street, Newburgh, N. Y.
- Vellensky, Bernard  
1437 40th Street, Brooklyn, N. Y.
- Volpert, Bernard Leon  
Newman P. O., Lake Placid, N. Y.
- Wagreich, Arthur  
1216 Hoe Avenue, New York, N. Y.
- Waldinger, Solomon  
150 Keap Street, Brooklyn, N. Y.
- Wallerick, Solomon  
82 Columbia Street, New York, N. Y.
- Wart, Arthur Henry  
Sandy Creek, N. Y.
- Washington, Mrs. Izetta L. A.  
450 West 149th Street, New York, N. Y.
- Weinberg, Louis Joseph  
45 West Boardwalk, Long Beach, N. Y.
- Weinstein, Morris  
1546 East 172d Street, New York, N. Y.
- Weiss, Harold  
140-29 Cherry Avenue, Flushing, N. Y.
- Weiss, Martin  
1521 Madison Avenue, New York, N. Y.
- Weiss, Samuel  
2162 Valentine Avenue, New York, N. Y.
- Welt, Morton  
2056 74th Street, Brooklyn, N. Y.
- Wexlin, Hyman  
1219 Rosedale Avenue, New York, N. Y.
- Wiesefeld, Irving  
957 Fox Street, New York, N. Y.
- Winer, Abe Marvin  
440 East 6th Street, New York, N. Y.
- Wise, Fred  
1726 Davidson Avenue, New York, N. Y.
- Yachnowitz, Louis  
120 Ludlow Street, New York, N. Y.
- Zanca, Natale Louis  
1320 Brook Avenue, New York, N. Y.
- Zanchelli, Gene Natalino  
343 East 152d Street, New York, N. Y.
- Zimand, Philip  
6318 Bay Parkway, Brooklyn, N. Y.

(217)

## REGISTER OF STUDENTS, SESSIONS OF 1931-1932

## FOURTH YEAR UNIVERSITY CLASS

- Blythe, Rudolph H.                      Roxbury, N. Y.
- Cook, Clayton M.                        Milford, N. Y.
- Fehder, Paul  
107-21 Union Hall Street, Jamaica, N. Y.
- Mar, George K.  
296 Ellen Street, Winnipeg, Manitoba,  
Canada
- Pond, Frank N., Jr.  
210 Hollywood Avenue, Douglaston, N. Y.

(5)

## THIRD YEAR UNIVERSITY CLASS

- Armao, John A.  
1024 Boston Road, New York, N. Y.
- Berg, Louis  
2851 Webb Avenue, New York, N. Y.
- Brown, Reginald C.  
1219 Union Avenue, New York, N. Y.
- Burch, Collingwood V.    St. Georges, Bermuda
- Chasanowitz, Bernard  
72 Sutter Avenue, Brooklyn, N. Y.

- Clunie, J. Norman  
234 West 111th Street, New York, N. Y.
- D'Orazio, Robert R.  
767 East 237th Street, New York, N. Y.
- Door, Elinor Utley  
167 Carroll Place, Staten Island, N. Y.
- Freedman, Samuel  
69 East 105th Street, New York, N. Y.
- Ginsbergh, Rubin R.  
2095 Honeywell Avenue, New York, N. Y.
- Givens, Johnson B.  
6 Cottage Place, Freehold, N. J.
- Hamann, George P. D.  
378 Himrod Street, Brooklyn, N. Y.
- Heiko, Harold  
770 Grote Street, New York, N. Y.
- Hoeler, William J.  
99 Rose Terrace, Newark, N. J.
- Isacoff, Harry  
17 Pleasant Street, Somersworth, N. H.
- Kleinsinger, Bert  
2601 Jerome Avenue, New York, N. Y.
- Koller, Joseph Michael  
346 East 85th Street, New York, N. Y.
- Pfister, C. Leonard  
49 East 19th Street, Brooklyn, N. Y.
- Pozdena, Milton O.  
6805 Woodside Avenue, Winfield, N. Y.
- Sasmor, Ernest J.  
1274 Lafayette Avenue, New York, N. Y.
- Sher, Philip Benjamin  
280 Crown Street, Brooklyn, N. Y.
- Silver, Jason Harold  
6 North Eighth Avenue, Mt. Vernon, N. Y.
- Silver, Sidney  
937 East 181st Street, New York, N. Y.
- Vigilante, Ovidio Carl  
4121 Junction Boulevard, Corona, N. Y.
- Wight, Christian F.  
35 Greenwood Avenue, Bethel, Conn.
- Ziliotto, Enrico  
121-20 Liberty Avenue, Richmond Hill,  
N. Y.
- Zlinkoff, Bernard W.  
233 West 112th Street, New York, N. Y.  
(27)
- SECOND YEAR UNIVERSITY CLASS
- Burger, Irving  
170 Union Avenue, Peekskill, N. Y.
- Fertig, Tobias Thomas  
141 Carlton Avenue, Brooklyn, N. Y.
- Gabriel, Joseph, Jr.  
1647 Barnum Avenue, Bridgeport, Conn.
- Geller, Manuel  
1418 Longfellow Avenue, New York, N. Y.
- Gioia, Roland  
409 Monastery Place, Union City, N. J.
- Goldman, Isidore  
331 Maple Avenue, Riverhead, N. Y.
- Granberg, Milda (Mrs.)  
169 Montgomery Street, Scarsdale, N. Y.
- Green, Alex  
155 East 94th Street, Brooklyn, N. Y.
- Gross, James Ernest  
720 North Montello Street, Brockton, Mass.
- Kessler, Nathan  
781 Fairmount Place, New York, N. Y.
- Kucker, Theodore D.  
1114 Magnolia Avenue, Elizabeth, N. J.
- Kupersmith, Libby  
260 Hillside Avenue, Leonia, N. J.
- Lizio, Joseph  
22-68 Crescent Street, Astoria, N. Y.
- Lyons, Nathan  
1673 74th Street, Brooklyn, N. Y.
- Mende, William C.  
34 Clifton Avenue, Clifton, N. J.
- Mont, Isadore  
Mohegan Colony, Peekskill, N. Y.
- Mucelli, Dante  
4031 Third Avenue, New York, N. Y.
- Ortega, Mario De J.  
34 Butler Place, Brooklyn, N. Y.
- Pisari, Louis Anthony  
53 Carlton Avenue, Brooklyn, N. Y.
- Pitocchi, Caroline Ellen  
1316 Bay Ridge Parkway, Brooklyn, N. Y.
- Schneider, William E. H., Jr.  
90 Engle Street, Englewood, N. J.
- Seltzer, Walter Maurice  
606 West 191st Street, New York, N. Y.
- Wackstein, Morris  
716 Cauldwell Avenue, New York, N. Y.  
(23)
- FIRST YEAR UNIVERSITY CLASS
- Barone, Angelo  
8645 Sixteenth Avenue, Brooklyn, N. Y.
- Biamonte, Alfred Robert  
257 Jersey Avenue, Cliffside Park, N. J.
- Devine, Peter J.  
189 Seeley Avenue, Arlington, N. J.
- Garizio, John E.  
94-11 Sixty-fifth Road, Forest Hills, N. Y.
- Godoff, Elliott  
4910 Seventeenth Avenue, Brooklyn, N. Y.
- Greenberg, William Jacob  
3346 Steuben Avenue, New York, N. Y.
- Grotsky, Julius  
1997 Douglass Street, Brooklyn, N. Y.
- Kaplan, Joseph  
79 West 55th Street, Bayonne, N. J.
- Levin, Julius R. D. 2, Englishtown, N. J.
- Lifschitz, Ruth  
145-02 88th Avenue, Jamaica, N. Y.

- Lifshutz, Sidney  
24 Anable Avenue, Long Island City, N. Y.
- Loiselle, Ernest J.  
239 River Street, Waterbury, Conn.
- Longyear, Robert  
489 East 34th Street, Brooklyn, N. Y.
- Maisel, Bernard Leo  
1018 East 163d Street, New York, N. Y.
- Megna, Michael  
1080 Sutter Avenue, Brooklyn, N. Y.
- Mencher, Gerald William  
556 Alabama Avenue, Brooklyn, N. Y.
- Pack, Isaac  
1781 East 10th Street, Brooklyn, N. Y.
- Rashmajian, Harry  
287 Sixth Avenue, Brooklyn, N. Y.
- Robinson, Clara Elizabeth  
43-06 159th Street, Flushing, N. Y.
- Siegel, Ida  
1024 Walton Avenue, New York, N. Y.
- Tiboni, Emil Angelo  
Diamond Lake Road, Glastonbury, Conn.
- Trentadue, Peter  
7 Welling Court, Long Island City, N. Y.
- Waniski, Charles A.  
475 18th Street, Brooklyn, N. Y.
- Whipple, Ruth Ann  
79 Prospect Street, White Plains, N. Y.
- Wohlman, Ella  
853 Macy Place, New York, N. Y.
- (25)
- THIRD YEAR COLLEGE CLASS
- Anopol, Annie  
51 Hamilton Place, New York, N. Y.
- Aponofsky, Anna  
Broadway and Little Neck Road, Little Neck, N. Y.
- Avignone, Carlo J.      Massapequa, N. Y.
- Badagliacca, Vincent  
130 George Street, Brooklyn, N. Y.
- Barbera, Anthony J.  
549 Henry Street, Brooklyn, N. Y.
- Bashevkin, Isaac  
1012 Rutland Road, Brooklyn, N. Y.
- Becker, Sidney S.  
2844 West 1st Street, Brooklyn, N. Y.
- Belitz, Morris  
501 West 175th Street, New York, N. Y.
- Bellet, Louis  
23-09 Astoria Avenue, Astoria, N. Y.
- Berkowitz, Efrem L.  
3242 Bedford Avenue, Brooklyn, N. Y.
- Bittar, Dewey  
5101 Sixth Avenue, Brooklyn, N. Y.
- Blick, Richard  
864 Troy Avenue, Brooklyn, N. Y.
- Bologh, Sidney D.  
2358 84th Street, Brooklyn, N. Y.
- Burton, Samuel  
1471 St. Marks Avenue, Brooklyn, N. Y.
- Busch, David C.  
1215 Nielson Avenue, Far Rockaway, N. Y.
- Caso, A. Arthur  
1139 White Plains Road, New York, N. Y.
- Chadkin, Jason A.  
1012 49th Street, Brooklyn, N. Y.
- Chu, Kang  
10 Doyers Street, New York, N. Y.
- Cohen, Benjamin  
501 West 123d Street, New York, N. Y.
- Colarusso, Thomas G.  
22 Harrison Street, Mt. Vernon, N. Y.
- Coller, Gertrude Ethel  
840 Castleton Avenue, Staten Island, N. Y.
- Coller, Pearl  
840 Castleton Avenue, Staten Island, N. Y.
- Cosenza, Salvatore  
216 Union Street, Brooklyn, N. Y.
- Cowan, John Wesley  
244 Palmer Avenue, Mamaroneck, N. Y.
- Cozzolino, Sylvia R.  
564 East 191st Street, New York, N. Y.
- D'Arco, George D.  
85 North Elliott Place, Brooklyn, N. Y.
- DeAngelis, Dominick F.  
1160 63d Street, Brooklyn, N. Y.
- Diecidue, Ignatius  
249 Stanhope Street, Brooklyn, N. Y.
- Doctors, Albert  
98-08 Corona Avenue, Corona, N. Y.
- Emrich, Ralph  
115 Maine Avenue, West New Brighton, N. Y.
- Erwich, H. Irving  
11 Newin Street, Corona, N. Y.
- Febbraio, Edmund  
1877 Longfellow Avenue, New York, N. Y.
- Feinberg, Louis  
121 Dahill Road, Brooklyn, N. Y.
- Feitelberg, Morton  
2102 Morris Avenue, New York, N. Y.
- Florentino, Anthony  
1280 Bergen Street, Brooklyn, N. Y.
- Foley, Vincent  
908 Bloomfield Street, Hoboken, N. J.
- Friedman, Oscar  
2 Webster Avenue, Jersey City, N. J.
- Fromm, Kate  
1226 Sherman Avenue, New York, N. Y.
- Gershkowitz, Louis  
415 Powell Street, Brooklyn, N. Y.
- Glaser, Herman  
442 Throop Avenue, Brooklyn, N. Y.
- Glaser, Jacob J.  
177 Avenue C, New York, N. Y.



- Glick, Esther Central Valley, N. Y.
- Glotzer, Isadore George  
1908 Prospect Avenue, New York, N. Y.
- Gnaizda, Samuel J.  
93 Schenck Avenue, Brooklyn, N. Y.
- Goldberg, David  
730 Sackman Street, Brooklyn, N. Y.
- Goldberg, Isidore George  
2266 Church Avenue, Brooklyn, N. Y.
- Goodrich, Minnie  
2070 Creston Avenue, New York, N. Y.
- Gordon, Jacob  
572 Ralph Avenue, Brooklyn, N. Y.
- Granet, Morris  
395 Powell Street, Brooklyn, N. Y.
- Greenfield, Benjamin  
618 East 140th Street, New York, N. Y.
- Grenadir, Hyman D.  
2232 Douglass Street, Brooklyn, N. Y.
- Guattery, Peter J.  
181 Wickham Avenue, Middletown, N. Y.
- Gulli, Antoinette R.  
7714 Sixteenth Avenue, Brooklyn, N. Y.
- Gumer, Max S.  
274 Ormond Street, Rochester, N. Y.
- Haber, Alexander C.  
1822 Mohegan Avenue, New York, N. Y.
- Handsman, Harry  
564 Linden Boulevard, Brooklyn, N. Y.
- Harris, Harry  
89 Fairview Avenue, New York, N. Y.
- Heiden, Eugenia  
2028 Davidson Avenue, New York, N. Y.
- Heller, John A.  
3 Oak Street, Poughkeepsie, N. Y.
- Henkin, Bernard  
210 West 80th Street, New York, N. Y.
- Homnik, Jacob  
645 East 6th Street, New York, N. Y.
- Hostomsky, Edward Alois  
106-18 Twenty-seventh Avenue, East Elmhurst, N. Y.
- Izenberg, Leo  
601 East 23d Street, Paterson, N. J.
- Jacobs, Frank  
53 Mott Street, New York, N. Y.
- Jones, Herbert H.  
317 49th Street, Union City, N. J.
- Kaplan, Jacob  
989 Fox Street, New York, N. Y.
- Kessler, Nathan  
227 Ashburton Avenue, Yonkers, N. Y.
- Ketcham, George V.  
Box 467, Northport, N. Y.
- Kirschenbaum, Samuel  
416 East 10th Street, New York, N. Y.
- Koretzky, Fanny  
359 West 45th Street, New York, N. Y.
- Kristal, Myer  
1682 Third Avenue, New York, N. Y.
- Kross, David T.  
786 Bushwick Avenue, Brooklyn, N. Y.
- Le Blanc, Milton  
78-15 Sixty-seventh Drive, Brooklyn, N. Y.
- Levy, Julius  
2403 Creston Avenue, New York, N. Y.
- Levy, Sarah Ida  
512 36th Street, Union City, N. J.
- Lubin, Sidney W.  
1684 Dahill Road, Brooklyn, N. Y.
- MacIennan, Daniel G.  
69 Memorial Place, Manhasset, N. Y.
- Maduri, Elizabeth Virginia  
164 Washington Park, Brooklyn, N. Y.
- Mahler, Henry  
745 East 175th Street, New York, N. Y.
- Mavrogiannis, John G.  
885 East 181st Street, New York, N. Y.
- Messina, Anthony P.  
56-58 MacDougal Street, New York, N. Y.
- Milchman, David  
167 Forbell Avenue, Brooklyn, N. Y.
- Mufson, Morris  
523 Gregory Avenue, Passaic, N. J.
- Naliboff, Edward Murray  
216 East 67th Street, New York, N. Y.
- Namiat, Morris  
2025 59th Street, Brooklyn, N. Y.
- Nardozza, Joseph S.  
413 Madison Street, Hoboken, N. J.
- Nelson, Lewis  
813 Center Street, Bowling Green, Ky.
- Newman, Percy Kaunonga Lake, N. Y.
- O'Connor, Harry J.  
2540 Humphries Street, East Elmhurst, N. Y.
- Padnis, Nathan  
730 Oakland Place, New York, N. Y.
- Paley, Irving  
58 Howard Avenue, Brooklyn, N. Y.
- Parrini, Arthur T.  
1312 Avenue H, Brooklyn, N. Y.
- Pavone, Egidio  
31 Mt. Hope Place, New York, N. Y.
- Perelzweig, Samuel  
1766 57th Street, Brooklyn, N. Y.
- Pfeffer, Alfred A.  
1177 Nelson Avenue, New York, N. Y.
- Photoglou, George  
204 Manhattan Avenue, New York, N. Y.
- Pinck, Nathan  
84 Henry Street, Passaic, N. J.
- Plotkin, Morris Louis  
1201 Gilbert Place, New York, N. Y.
- Posner, Murray William  
183 Varet Street, Brooklyn, N. Y.

- Pucillo, Nataleen V.  
Box 311, Tuxedo Park, N. Y.
- Rabinowitz, Ephroim  
142 West 112th Street, New York, N. Y.
- Rand, George  
667 West 161st Street, New York, N. Y.
- Reddick, Aubert E.  
115 Edgecombe Avenue, Apt. 3, New York, N. Y.
- Richman, Alexander  
341 Vernon Avenue, Brooklyn, N. Y.
- Rocchio, Philip  
108-20 Forty-eighth Avenue, Corona, N. Y.
- Rosen, Abraham  
2109 Daly Avenue, New York, N. Y.
- Rosenberg, Hyman Fred  
1530 Sheridan Avenue, New York, N. Y.
- Rosenberg, Mandel  
6727 75th Street, Middle Village, N. Y.
- Roshkofsky, Jack  
2077 East 12th Street, Brooklyn, N. Y.
- Rovira, Frank  
24 West 112th Street, New York, N. Y.
- Ruggiero, William E.  
49 Highland Terrace, Manhasset, N. Y.
- Safarik, Joseph J.  
80 Grand Street, Springfield, Mass.
- Saks, Joseph Herman  
396 Schenck Avenue, Brooklyn, N. Y.
- Salmeri, Frances Mary  
1041 67th Street, Brooklyn, N. Y.
- Schansinger, Benjamin  
7903 Sixty-eighth Road, Middle Village, N. Y.
- Schnaer, Abraham I.  
473 Pennsylvania Avenue, Brooklyn, N. Y.
- Schweig, Harry Karl  
1263 Fteley Avenue, New York, N. Y.
- Simon, Isidore  
3154 Coney Island Avenue, Brooklyn, N. Y.
- Simon, Samuel  
1535 Minford Place, New York, N. Y.
- Singer, Frank  
1770 Grand Concourse, New York, N. Y.
- Soikin, David  
1595 Macombs Road, New York, N. Y.
- Stein, Abraham  
864 Troy Avenue, Brooklyn, N. Y.
- Steinhauer, Bernard  
1240 44th Street, Brooklyn, N. Y.
- Ticktin, George Beverly  
157 Christie Street, Toronto, Ontario, Canada
- Trovato, Michael Alexander  
32-49 100th Street, Corona, N. Y.
- Umlas, Irving  
1041 Bryant Avenue, New York, N. Y.
- Unger, Bernard  
522 West 161st Street, New York, N. Y.
- Villone, Anna Rose  
161 West 4th Street, New York, N. Y.
- Wagner, Morris  
329 East 56th Street, New York, N. Y.
- Waugh, Theodore  
79-34 Sixty-seventh Road, Middle Village, N. Y.
- Weiss, Harry  
366 Riverdale Avenue, New York, N. Y.
- Weiss, Stanley Daniel  
30 Fairview Avenue, New York, N. Y.
- Werst, Francis Bernard  
906 Cottage Place, Union City, N. J.
- Winokur, Emanuel  
577 Bushwick Avenue, Brooklyn, N. Y.
- Wishner, Jacob  
222 Marcy Avenue, Brooklyn, N. Y.
- Wishny, Gilbert  
88-92 East 111th Street, New York, N. Y.
- Wohl, Benjamin  
174 Eldridge Street, New York, N. Y.
- Woien, David  
1262 Brook Avenue, New York, N. Y.
- Wunsh, Theodore E.  
1329 Fifth Avenue, New York, N. Y.
- Yarow, Harold  
104-55 113th Street, Richmond Hill, N. Y.
- Yarvis, Samuel  
490 Warwick Street, Brooklyn, N. Y.
- Youran, Morris  
46 Fort Washington Avenue, New York, N. Y.
- Zeichner, Harold  
1269 Noble Avenue, New York, N. Y.
- Zuckerman, Abe  
360 Beekman Avenue, New York, N. Y.
- Zykorie, Emil  
142 Ross Street, Brooklyn, N. Y.
- (145)

## SECOND YEAR COLLEGE CLASS

- Adler, Nathan  
201 Broad Street, Stapleton, N. Y.
- Alward, James Carlton  
616 West 113th Street, New York, N. Y.
- Anderson, Lloyd  
31 Cumberland Avenue, Verona, N. J.
- Antman, Herbert  
2133 72d Street, Brooklyn, N. Y.
- Armentano, Joseph L.  
3558 71st Street, Jackson Heights, N. Y.
- Baker, Samuel D.  
53 Victory Boulevard, Tompkinsville, N. Y.
- Baumgarten, Harry M.  
1513 39th Street, Brooklyn, N. Y.
- Bazilian, Jacob  
954 Prospect Avenue, New York, N. Y.

- Beadle, Kenneth G.  
158 Bruyer Avenue, Kingston, N. Y.
- Bennett, Frank  
563 South Greenwich Avenue, Greenwich,  
Conn.
- Bernstein, Moses  
766 Ninth Avenue, New York, N. Y.
- Bloom, David  
284 East 53d Street, Brooklyn, N. Y.
- Bologh, Joseph  
1416 Stebbins Avenue, New York, N. Y.
- Burano, John Ernest  
403 East 100th Street, New York, N. Y.
- Byron, Grace Marie  
224-23 Ninety-second Avenue, Queens Vil-  
lage, N. Y.
- Casey, Charles Burns Washingtonville, N. Y.
- Cerciello, Louis Joseph  
22 Westervelt Place, Jersey City, N. J.
- Chu, James Hing  
10 Doyers Street, New York, N. Y.
- Cohen, Elias  
1824 McGraw Avenue, New York, N. Y.
- Cohen, Hymen  
915 Elsmere Place, New York, N. Y.
- Cohen, Joseph  
1050 Fox Street, New York, N. Y.
- Cooper, Morris  
1069 Morris Park Avenue, New York, N. Y.
- Davidson, David  
181 South Mill Street, Liberty, N. Y.
- Davis, David  
1771 57th Street, Brooklyn, N. Y.
- Dobruskin, George  
1548 Bryant Avenue, New York, N. Y.
- D'Onofrio, Rocco E.  
107 Shotwell Park, Syracuse, N. Y.
- Edghill, Kenneth  
68 West 139th Street, New York, N. Y.
- Englander, Milton  
776 East 161st Street, New York, N. Y.
- Fasolino, Mario  
111 North Regent, Port Chester, N. Y.
- Feeney, William J.  
111-35 132d Street, Ozone Park, N. Y.
- Feldman, Philip Jesse  
20 South Ninth Avenue, Mt. Vernon, N. Y.
- Ferraro, Joseph George  
37 Spring Dell, Rutherford, N. J.
- Fish, Elias Edward  
1311 Avenue K, Brooklyn, N. Y.
- Fisher, Arthur S.  
701 Crotona Park North, New York, N. Y.
- Fleisch, Wolf  
2136 Clinton Avenue, New York, N. Y.
- Friedman, Hyman  
216 Rochester Avenue, Brooklyn, N. Y.
- Friedman, Michell  
199 Van Buren Street, Brooklyn, N. Y.
- Frisch, Bernard  
789 West End Avenue, New York, N. Y.
- Furman, Marcus  
1438 42d Street, Brooklyn, N. Y.
- Gammer, Irving  
1820 Belmont Avenue, New York, N. Y.
- Gettleman, Carl  
2363 Valentine Avenue, New York, N. Y.
- Gevirtz, Hyman  
2019A Bergen Street, Brooklyn, N. Y.
- Giuliano, Armida  
2367 Prospect Avenue, New York, N. Y.
- Gold, Alex 105 Elm Street, Rocky Hill, Conn.
- Goldstein, Benjamin  
871 Longwood Avenue, New York, N. Y.
- Goldstein, Maurice  
120 Stockton Street, Hightstown, N. J.
- Gomez, Augusto Las Piedras, Porto Rico
- Goodkin, Harry  
1059 Tiffany Street, New York, N. Y.
- Groetzky, Israel  
262 Neptune Avenue, Brooklyn, N. Y.
- Grassi, Julius  
67 Mill Street, Newburgh, N. Y.
- Green, William  
1017 Intervale Avenue, New York, N. Y.
- Greenbaum, Jack  
1425 Whythe Place, New York, N. Y.
- Guberman, Louis  
1095 Boston Road, New York, N. Y.
- Gzibeck, Samuel  
3107 84th Street, Jackson Heights, N. Y.
- Horowitz, David  
220 Westervelt Avenue, New Brighton, N. Y.
- Kagle, Arthur  
598 West 178th Street, New York, N. Y.
- Kahner, Paul  
1348 Noble Avenue, New York, N. Y.
- Kaplan, Leo  
946 East 181st Street, New York, N. Y.
- Katz, Abraham  
219 East 121st Street, New York, N. Y.
- Katz, Philip  
18 Van Cliff Street, Corona, N. Y.
- Kimber, George Henry  
R. D. No. 2, Fayetteville, N. Y.
- Kluge, Sol J.  
24 Bennett Avenue, New York, N. Y.
- Koblin, David C.  
151 High Avenue, Nyack, N. Y.
- Koller, John  
346 East 85th Street, New York, N. Y.
- LaRocca, Frank  
139 East 4th Street, New York, N. Y.
- Lazar, Nathan  
474 Jerome Street, Brooklyn, N. Y.
- Lefkowitz, Leo  
2707 Barnes Avenue, New York, N. Y.

- Lettieri, Nunzi  
 162 Schenectady Avenue, Brooklyn, N. Y.  
 Levine, Sidney G. New Egypt, N. J.  
 Levy, Morris M.  
 1326 Ocean Parkway, Brooklyn, N. Y.  
 McCaffrey, Edward  
 56 Paris Road, New Hartford, N. Y.  
 Maggio, Michael  
 14 First Avenue, New York, N. Y.  
 Maller, Julius  
 704 Howard Avenue, Brooklyn, N. Y.  
 Marchese, Justin R.  
 591 St. Ann's Avenue, New York, N. Y.  
 Marcus, Fred  
 1230 Wheeler Avenue, New York, N. Y.  
 Mariani, Yolanda  
 3350 White Plains Avenue, New York, N. Y.  
 Marturano, Philip S.  
 856 West Dominick Street, Rome, N. Y.  
 Mazlish, Abraham  
 137A DeKalb Avenue, Jersey City, N. J.  
 Messina, Joseph  
 1314 Second Avenue, New York, N. Y.  
 Milkowitz, Morris  
 235 Roebling Street, Brooklyn, N. Y.  
 Miller, Alfred  
 327 Victory Boulevard, Staten Island, N. Y.  
 Mintzer, Nathan  
 130-01 One hundred and ninth Avenue,  
 Richmond Hill, N. Y.  
 Mitchell, Harry  
 140 West 76th Street, New York, N. Y.  
 Moskoff, Joseph William  
 277 West 117th Street, New York, N. Y.  
 Ostrofsky, Isidore  
 323 Alabama Avenue, Brooklyn, N. Y.  
 Pink, Abraham  
 252 Highland Avenue, Passaic, N. J.  
 Price, Sybil Louise  
 25 St. Nicholas Avenue, New York, N. Y.  
 Pushkin, George  
 1691 Fulton Avenue, New York, N. Y.  
 Raich, George Alfred  
 83-46 118th Street, Kew Gardens, N. Y.  
 Raskin, Nathan  
 1523 Washington Avenue, New York, N. Y.  
 Rauch, Irving H.  
 46-48 Avenue B, New York, N. Y.  
 Reid, Norman F.  
 42-71 79th Street, Elmhurst, N. Y.  
 Rose, Herbert H.  
 222 Main Street, Highland Falls, N. Y.  
 Rosenblatt, Raphael  
 1785 Prospect Avenue, New York, N. Y.  
 Santoriello, Nicholas  
 184 Richardson Street, Brooklyn, N. Y.  
 Sarnier, Sam  
 92 Ridge Street, New York, N. Y.  
 Schneider, Moses  
 1245 Findlay Avenue, New York, N. Y.  
 Schneller, Michael  
 408 East 158th Street, New York, N. Y.  
 Scholefield, Lewis J., Jr.  
 23 Ralph Street, Beacon, N. Y.  
 Selvin, Murray L.  
 36 Englewood Avenue, West Englewood,  
 N. J.  
 Shahon, Alexander  
 1012 Voorhees Avenue, Brooklyn, N. Y.  
 Siegel, Abraham  
 512 E. Taylor Street, Syracuse, N. Y.  
 Spanuello, Charles  
 2887 Harrington Avenue, New York, N. Y.  
 Spiegel, Martin  
 587 Concord Avenue, New York, N. Y.  
 Stack, Irving  
 631 Edgecomb Avenue, New York, N. Y.  
 Strassfeld, Solomon  
 96 Willett Street, New York, N. Y.  
 Tropia, Joseph  
 245 East 39th Street, New York, N. Y.  
 Truyol, Josefina  
 Calimano Street, Guyama, Porto Rico  
 Truyol, Rafaela  
 Calimano Street, Guyama, Porto Rico  
 Valenti, Anthony S.  
 134 Grove Street, Brooklyn, N. Y.  
 Vernava, Anthony  
 134 White Street, New York, N. Y.  
 Vinci, Thomas L.  
 Highland Road, East Port Chester, Conn.  
 Wahls, Henry A.  
 8843 186th Street, Hollis, N. Y.  
 Wait, Gretchen  
 216 Grand Street, Newburgh, N. Y.  
 Walter, Henry C.  
 48 West 75th Street, New York, N. Y.  
 Weinstein, Louis  
 299 East 8th Street, New York, N. Y.  
 Weissman, Theodore  
 227 East Chester Street, Long Beach, N. Y.  
 Wexler, Jacob  
 431 Stafford Avenue, Syracuse, N. Y.  
 Whitney, Edward H.  
 172 Lander Street, Newburgh, N. Y.  
 Wolfe, Solomon  
 295 South 2d Street, Brooklyn, N. Y.  
 Wolff, Max  
 706 Riverside Drive, New York, N. Y.  
 Wolinsky, William  
 25 Crescent Street, Rutland, Vt.  
 Zauderer, Isidor T.  
 501 West 124th Street, New York, N. Y.  
 (123)

## FIRST YEAR COLLEGE CLASS

- Agovino, Alphonse F.  
503 West 178th Street, New York, N. Y.
- Arida, William R.  
560 44th Street, Brooklyn, N. Y.
- Asher, Arthur H.  
830 Saratoga Avenue, Brooklyn, N. Y.
- Aumenta, Patrick J.  
403 1st Street, Jersey City, N. J.
- Auriemma, Joseph J.  
53 Greenville Avenue, Jersey City, N. J.
- Bellanca, Edi  
7706 Fifteenth Avenue, Brooklyn, N. Y.
- Binder, Israel  
570 West 189th Street, New York, N. Y.
- Blackman, Edward  
540 Lenox Avenue, New York, N. Y.
- Brodkin, Jacob  
34-35 98th Street, Corona, N. Y.
- Caruso, Anthony  
491 Warren Street, Brooklyn, N. Y.
- Cassidy, William F.  
754 Broadway, Newburgh, N. Y.
- Cerreta, Louis  
417 East 116th Street, New York, N. Y.
- Chadabe, Sylvia C.  
3631 East Tremont Avenue, New York, N. Y.
- Chodorov, Leo  
233 East 5th Street, New York, N. Y.
- Ciccotto, Louis J.  
308 East 39th Street, New York, N. Y.
- Clott, Samuel  
190 Van Nostrand Avenue, Jersey City, N. J.
- Cohen, Jack  
1280 Commonwealth Avenue, New York, N. Y.
- Cohen, Louis  
1639 Fulton Avenue, Apt. 2D, New York, N. Y.
- Cohen, Noah  
327 Stone Avenue, Brooklyn, N. Y.
- Connelly, Arthur G.  
831 Park Avenue, Union City, N. J.
- Covert, Edward Vail  
117 Chambers Street, Newburgh, N. Y.
- Daniels, Samuel  
1981 Vyse Avenue, New York, N. Y.
- Deitchman, Joseph  
1065 Boston Road, New York, N. Y.
- Denn, Herbert P.  
319 Hamilton Avenue, Paterson, N. J.
- De Pedro, Reinaldo  
1576 Taylor Avenue, New York, N. Y.
- Di Pasquale, Italo  
1270 62d Street, Brooklyn, N. Y.
- Donner, Joseph  
529 West 180th Street, New York, N. Y.
- Dresner, Max William  
1657 Bathgate Avenue, New York, N. Y.
- Drobner, Harry T.  
219 Henry Street, New York, N. Y.
- Ennico, Louis Edward  
1521 Undercliff Avenue, New York, N. Y.
- Epstein, Hyman Julius  
548 Court Street, Brooklyn, N. Y.
- Epstein, Morris  
16 Elliot Place, New York, N. Y.
- Fader, Arnold  
552 Riverside Drive, New York, N. Y.
- Falevitch, Max  
440 East 121st Street, New York, N. Y.
- Fanto, Earl James  
8 Ludlow Road, Fairfield, Conn.
- Feinberg, Harold  
1020 Faile Street, New York, N. Y.
- Felberbaum, Alfred Samuel  
327 Central Park West, New York, N. Y.
- Feldman, David Irving  
1054 Manor Avenue, New York, N. Y.
- Fish, Sidney Jerome  
1311 Avenue K, Brooklyn, N. Y.
- Fleming, Patrick Joseph  
195 Prospect Park West, Brooklyn, N. Y.
- Fortunato, Vincent  
16 West Union Street, Bay Shore, N. Y.
- Freilich, Jacob  
205 East 78th Street, New York, N. Y.
- Fried, Max  
1171 Sherman Avenue, New York, N. Y.
- Friedman, Bernard  
1288 St. John's Place, Brooklyn, N. Y.
- Fulladosa, Joseph A.  
22 Fort Hill Circle, St. George, N. Y.
- Gildenberg, Leon Phillip  
581 Academy Street, New York, N. Y.
- Gold, Harry  
1434 Bryant Avenue, New York, N. Y.
- Gordon, Philip  
Phoenicia, N. Y.
- Gordon, Sidney  
630 Concord Avenue, New York, N. Y.
- Gura, Theodore  
2413 Morgan Avenue, New York, N. Y.
- Haff, John Floyd  
North Broadway, Amityville, N. Y.
- Handel, Richard  
1669 Park Avenue, New York, N. Y.
- Herbst, Joseph Paul  
340 East 77th Street, New York, N. Y.
- Hill, William DeWitt, Jr.  
72 Clinton Avenue, New Brighton, N. Y.
- Honigberg, Augusta Olga (Mrs.)  
3406 45th Street, Astoria, N. Y.
- Jerome, Peter Ralph  
10-19 Forty-seventh Road, Long Island City, N. Y.

- Kaminsky, Israel  
949 Tiffany Street, New York, N. Y.
- Kaplan, Harold  
868 Faile Street, New York, N. Y.
- Katzman, George  
298 Broome Street, New York, N. Y.
- Keylin, Sidney  
2141 Holland Avenue, New York, N. Y.
- Kline, Harold  
8 East Rockaway Road, Hewlett, N. Y.
- Klugman, Harry  
953 Tiffany Street, New York, N. Y.
- Kopinsky, Samuel  
351 Riverdale Avenue, Brooklyn, N. Y.
- LaScala, Vincenza Helene  
1704 Lexington Avenue, New York, N. Y.
- Lass, Herbert  
18-14 122d Street, College Point, N. Y.
- Lazarowitz, Irving Edward  
14-14 Grand Avenue, Astoria, N. Y.
- Leibowitz, Oscar Edward  
415 Columbus Avenue, New Haven, Conn.
- Lerner, Abraham S.  
2017 Vyse Avenue, New York, N. Y.
- Lesser, Harold J.  
2075 Grand Concourse, New York, N. Y.
- Levkov, Harry  
413 Central Avenue, Jersey City, N. J.
- Locurto, William  
212 Ralph Avenue, Brooklyn, N. Y.
- Lomazoff, Benjamin  
121 Lee Avenue, Brooklyn, N. Y.
- Lo Parco, Americo  
Box 405, Hawthorne, N. Y.
- Lovi, Aladar  
18 Terez Korut, Budapest, Hungary
- Luchen, Sydney  
1765 66th Street, Brooklyn, N. Y.
- Lutwick, Samuel  
168 East 95th Street, Brooklyn, N. Y.
- Mazza, Michael F.  
392 Spring Street, Long Branch, N. J.
- Meyerson, Solomon  
107 Van Buren Street, Brooklyn, N. Y.
- Miklean, Eli  
229 East 21st Street, New York, N. Y.
- Miller, Esther  
652 Broadway, Kingston, N. Y.
- Mininsohn, Sidney  
12 William Place, Maspeth, N. Y.
- Mitchell, Walter Lawrence  
34 Ashton Street, Charleston, S. C.
- Modero, Patrick  
260 1st Street, Hoboken, N. J.
- Murray, William A., Jr.  
25 High Street, Cold Spring, N. Y.
- Needleman, Louis  
539 Christopher Avenue, Brooklyn, N. Y.
- Oakley, Maurice James  
Briarcliff Manor, N. Y.
- Ossias, Sidney  
1755 Eastburn Avenue, New York, N. Y.
- Pape, Emil Thomas  
39-52 64th Street, Woodside, N. Y.
- Pisetzner, Sophie  
151 St. Ann's Avenue, New York, N. Y.
- Podolsky, Mortimer  
580 West 176th Street, New York, N. Y.
- Pollack, Harold  
2760 Grand Concourse, New York, N. Y.
- Pomerantz, George  
150 East 2d Street, New York, N. Y.
- Puma, Louis  
252 Stagg Street, Brooklyn, N. Y.
- Rafferty, William E.  
212 Main Street, Highland Falls, N. Y.
- Raisley, Amerigo John  
60 Button Street, West New Brighton, N. Y.
- Raymen, Morris  
419 West 115th Street, New York, N. Y.
- Reali, Theodore  
387 Sixth Avenue, New York, N. Y.
- Reichman, Albert L.  
336 Van Duzer Street, Stapleton, N. Y.
- Reiter, Saul  
1908 North 6th Street, Harrisburg, Pa.
- Renda, William  
646 East 84th Street, Brooklyn, N. Y.
- Renzulli, Vincent James  
278 Summit Street, Jersey City, N. J.
- Ristaino, Ralph Anthony  
308 Fourth Street, Jersey City, N. J.
- Rivelles, Vincent A.  
111-47 41st Avenue, Corona, N. Y.
- Rudick, Gertrude  
2182 Barnes Avenue, New York, N. Y.
- Sabino, James John  
145 West 100th Street, New York, N. Y.
- Sakofsky, Harold S.  
Florida, N. Y.
- Samuels, Charlotte  
1349 Stratford Avenue, New York, N. Y.
- Schneir, Moe  
437 Hopkinson Avenue, Brooklyn, N. Y.
- Schoychid, Sam  
1895 Walton Avenue, New York, N. Y.
- Schwartz, Aaron  
6417 Broadway, Woodside, N. Y.
- Schwartz, Alexander Edward  
215 East 12th Street, New York, N. Y.
- Schwartz, David  
1259 Longfellow Avenue, New York, N. Y.
- Schwartzberg, Solomon  
2033 62d Street, Brooklyn, N. Y.
- Siegel, Isidore  
610 West 141st Street, New York, N. Y.
- Siegel, Nathan  
62 Forsythe Street, New York, N. Y.
- Siegel, Philip  
62-64 Forsythe Street, New York, N. Y.

- Silverman, Sam  
501 Bergen Avenue, Jersey City, N. Y.
- Singer, Isadore Arnold  
3165 Decatur Avenue, New York, N. Y.
- Soled, Samuel  
338 4th Street, Jersey City, N. J.
- Spanier, Henry  
117 Clymer Street, Brooklyn, N. Y.
- Starr, Joseph  
1373 Franklin Avenue, New York, N. Y.
- Stecher, Emanuel  
637 Sutter Avenue, Brooklyn, N. Y.
- Stefanelli, Anthony Stephen  
9401 101st Avenue, Ozone Park, N. Y.
- Stein, Nathan  
531 Gravesend Avenue, Brooklyn, N. Y.
- Stillman, David  
318 East 8th Street, New York, N. Y.
- Streiffer, S. Harold  
59 East 96th Street, New York, N. Y.
- Sullivan, John Lorenzo  
6 4th Street, Haverstraw, N. Y.
- Tanenbaum, Benjamin  
1988 Belmont Avenue, New York, N. Y.
- Taylor, Harold L.  
61 Line Street, Charleston, S. C.
- Thompson, Julia  
258 West 136th Street, New York, N. Y.
- Tucker, Henry  
138 West 30th Street, Bayonne, N. J.
- Wagman, Jacob  
2911 Barnes Avenue, New York, N. Y.
- Walters, Ethel Chadabe  
3631 East Tremont Avenue, New York, N. Y.
- Wasserman, Milton J.  
2026 65th Street, Brooklyn, N. Y.
- Webb, James Lowe  
Hogansville, Ga.
- Wein, Reuben  
1452 Wilkins Avenue, New York, N. Y.
- Weintraub, Herman  
680 Beck Street, New York, N. Y.
- Wilensky, Joseph  
1943 66th Street, Brooklyn, N. Y.
- Wright, William George  
23 Ellis Avenue, Newburgh, N. Y.
- Wrobel, Morris  
1929 81st Street, Brooklyn, N. Y.
- Ya Deau, William Earl  
116 Henry Street, Palisades Park, N. J.
- Yakimoff, Frank Sheer  
Katonah, N. Y.
- Yawata, Richard  
444 McNeill Street, Honolulu, Hawaiian  
Islands  
(143)

## SPECIAL STUDENT

- Stuller, Daniel  
13 Grove Street, South Norwalk, Conn.  
(1)

# SYNOPSIS OF UNIVERSITY COURSE STUDIES

SUBSEQUENT TO THE SESSIONS OF 1931-1932

*First Year, 1932-1933 (see page 30)*

*Second Year (beginning with the session of 1933-1934)*

	Class Hours	Laboratory Hours	Points
Inorganic chemistry (metals)	3	0	6
Analytical chemistry (basic and acidic ions)	0	3	3
Botany, plant morphology and histology	3	4 ½	10 ½
Zoölogy	1	2	4
Dispensing pharmacy	1	2	4
<sup>1</sup> English	2	0	4
German	4	0	8
Solid geometry	3	0	3
Plane trigonometry	3	0	3

*Third Year (beginning with the session of 1934-1935)*

Organic chemistry	3	0	6
Analytical chemistry (volumetric, pharmacopœial testing, and urine analysis)	0	18 <sup>2</sup>	9
Macroscopic pharmacognosy	0	2	2
Human physiology and first aid	2	0	4
Bacteriology	2 <sup>2</sup>	4 <sup>2</sup>	4
Theory of pharmacy	2	0	4
Pharmaceutical Latin	1	0	2
Dispensing pharmacy	2	6 <sup>2</sup>	5
Manufacturing pharmacy	0	4 <sup>2</sup>	2
Pharmaceutical economics	1	2	4
German	2	0	4

*Fourth Year (beginning with the session of 1935-1936)*

Inorganic quantitative analysis	0	18 <sup>2</sup>	9
Theories of chemistry	1	0	2
Biochemistry	1	0	2
Materia medica	4	0	8
Toxicology and posology	1 ½	0	3
Medical appliances	1 <sup>2</sup>	0	1
Microscopic pharmacognosy	1 <sup>2</sup>	3 <sup>2</sup>	2 ½
Advanced physiology	1	0	2
Pharmaceutical jurisprudence and economics	1 ½	0	3
Manufacturing pharmacy	0	11 <sup>2</sup>	5 ½
Theoretical and practical dispensing pharmacy	1	2	3
Theoretical pharmacy	3	0	6

<sup>2</sup> During 16 weeks.



## ACADEMIC CALENDAR

1932

- June 6-Aug. 6. Summer Laboratory Courses.  
Sept. 7-9. Registration for first year candidates.  
6-10. Supplementary Examinations.  
14-15. Registration for second, third, and fourth year candidates.  
19. Monday, One Hundred and Third Session begins. Second, Third and Fourth Year Classes assemble 9 a. m.  
20. Tuesday, First Year Classes assemble 9 a. m.  
Oct. 3. Monday, Evening Courses start.  
Nov. 8. Tuesday, Election Day, Holiday.  
24. Thursday, to November 26, Saturday, inclusive. Thanksgiving Holidays.  
Dec. 22. Thursday, to

1933

- Jan. 3. Tuesday, inclusive, Christmas Holidays.  
4. Wednesday, Sessions resumed.  
16-21. Mid-Year Examinations.  
23. Monday, Second Semester, Evening Courses start.  
Feb. 13. Monday, Lincoln's Birthday, Holiday.  
22. Wednesday, Washington's Birthday, Holiday.  
Apr. 3. Monday, All classes. Last day for applying for final examinations with payment of fee.  
14-15. Spring Holiday.  
May 5. Friday, Evening Courses close.  
8-15. Final Examinations, First, Second, and Third year College and University Classes.  
15-17. Final Examinations, Senior University Class.  
24. Wednesday, First and Second Year Exercises (Alumni Day).  
25. Thursday, College Commencement.  
June 6. Tuesday, University Commencement.

## SCHEDULE OF EXAMINATIONS

### *Supplementary Examinations*

#### FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

1932

- Sept. 6. Tuesday, 9-12, *Phr. 1-2*, Pharmacy.  
7. Wednesday, 9-12, *Chm. 3-4*, Chemistry.  
Wednesday, 2-5, *Chm. 1-2*, Physics.  
Sept. 8. Thursday, 9-12, *M.M. 1-2*, Botany.  
Thursday, 9-12, *M.M. 5-6*, Posology.  
Thursday, 2-5, *Eng. 1-2*, English.  
Thursday, 2-5, *Hist. 1-2*, American government.

## SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- Sept. 6. Tuesday, 9-12, *Phr.* 51-52, Theoretical pharmacy.  
 Tuesday, 2-5, *Phr.* 61-62, Commercial pharmacy.
7. Wednesday, 9-12, *Chm.* 55-56, Inorganic chemistry.  
 Wednesday, 2-5, *Phr.* 53-54, Pharmaceutical Latin.
8. Thursday, 9-12, *M.M.* 57-58, Physiology.  
 Thursday, 9-12, *M.M.* 59-60, Microbiology.  
 Thursday, 2-5, *Ger.* 51-52, German.

## THIRD YEAR COLLEGE AND UNIVERSITY CLASSES

- Sept. 6. Tuesday, 9-12, *Phr.* 101-102, Theoretical pharmacy.  
 Tuesday, 2-5, *Phr.* 107-108, Dispensing pharmacy.  
 Tuesday, 2-5, *Math.* 101-102, Mathematics.
7. Wednesday, 9-12, *Chm.* 103-104, Organic chemistry.  
 Wednesday, 2-5, *Chm.* 101-102, Theories of chemistry.  
 Wednesday, 2-5, *Chm.* 107-108, Newer remedies.
8. Thursday, 9-12, *M.M.* 101-102, Materia medica.  
 Thursday, 2-5, *M.M.* 103-104, Toxicology.  
 Thursday, 2-5, *M.M.* 109-110, Pharmacal sundries.
9. Friday, 9-12, *Phr.* 109-110, Jurisprudence and business pharmacy.

## FOURTH YEAR UNIVERSITY CLASS

- Sept. 6. Tuesday, 2-5, *Phr.* 151-152, Advanced pharmacy.
7. Wednesday, 9-12, *Chm.* 153-154, Food analysis and toxicology.  
 Wednesday, 2-5, *Chm.* 151-152, Inorganic quantitative analysis.  
 Wednesday, 2-5, *Chm.* 155-156, Biological chemistry.
8. Thursday, 9-12, *M.M.* 155-156, Physiology.

*Mid-Year Examinations and Tests*

1933

- Jan. 16-21. A schedule of these examinations and tests will be posted on the bulletin boards. Students not in residence should consult the Registrar for information regarding them.

*Final Examinations*

## FIRST YEAR COLLEGE AND UNIVERSITY CLASSES

1933

- May 9. Tuesday, 9-12, *M.M.* 1-2, Botany.  
 Tuesday, 9-12, *M.M.* 5-6, Posology.  
 Tuesday, 2-5, *Chm.* 3-4, Inorganic chemistry.
11. Thursday, 9-12, *Chm.* 1-2, Physics.  
 Thursday, 2-6, *Phr.* 1-2, 4, 5-6, Pharmacy, arithmetic, history and ethics.
13. Saturday, 9-12, *Eng.* 1-2, English.  
 Saturday, 9-12, *Hist.* 1-2, American history.

## SECOND YEAR COLLEGE AND UNIVERSITY CLASSES

- May 8. Monday, 9-12, *Phr.* 51-52, Theoretical pharmacy.  
 Monday, 2-5, *M.M.* 57-58, Physiology.  
 Monday, 2-5, *M.M.* 59-60, Microbiology.
10. Wednesday, 9-12, *Chm.* 55-56, Inorganic chemistry.
11. Thursday, 9-12, *Ger.* 51-52, German.
12. Friday, 9-12, *Phr.* 61-62, Commercial pharmacy.  
 Friday, 2-5, *Phr.* 53-54, Pharmaceutical Latin.

## THIRD YEAR COLLEGE AND UNIVERSITY CLASSES

- May 8. Monday, 9-12, *Chm.* 103-104, Organic chemistry.  
 Monday, 2-5, *Chm.* 107-108, Newer remedies.
9. Tuesday, 9-12, *Chm.* 101-102, Theories of chemistry.  
 Tuesday, 2-5, *Math.* 101-102, Mathematics.
10. Wednesday, 9-12, *Phr.* 101-102, Theoretical pharmacy.  
 Wednesday, 2-5, *Phr.* 109-110, Jurisprudence and business pharmacy.
12. Friday, 9-12, *M.M.* 101-102, Materia medica.  
 Friday, 2-5, *M.M.* 103-104, Toxicology.  
 Friday, 2-5, *M.M.* 109-110, Medical appliances and first aid.
15. Monday, 9-12, *Phr.* 103-104, Dispensing pharmacy.

## FOURTH YEAR UNIVERSITY CLASS

- May 15. Monday, 9-12, *Phr.* 151-152, Pharmacy.  
 Monday, 1-4, *Chm.* 151-152, Inorganic quantitative analysis.
16. Tuesday, 9-12, *Chm.* 153-154, Food analysis and toxicology.
17. Wednesday, 9-5, *Chm.* 155-156, Biological chemistry.  
 Wednesday, 9-5, *M.M.* 155-156, Physiology.













# Columbia University

## BULLETIN OF INFORMATION

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Thirty-third Series, No. 48

August 26, 1933

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ANNOUNCEMENT OF THE

# COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

FOR THE WINTER AND SPRING SESSIONS

1933-1934



113-119 WEST 68TH STREET  
NEW YORK

# Columbia University Bulletin of Information

Thirty-third Series, No. 48

August 26, 1933

Issued weekly at Columbia University, Morningside Heights, New York, N. Y. Entered as second-class matter August 10, 1918, at the Post Office at New York, N. Y., under the Act of August 24, 1912. Acceptance for mailing at a special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized. These include:

1. Reports of the President and Treasurer to the Trustees.
2. The Catalogue Number, the Directory Number and the Announcements of the several Colleges and Schools, and of certain Divisions, relating to the work of the next year. These are made as accurate as possible, but the right is reserved to make changes in detail as circumstances require. The current number of any of these Announcements will be sent without charge upon application to the Secretary of the University.

C.U.P.—19,300—1933.

For special or more detailed information than is given in this Announcement, applicants are requested to address the Registrar of the College, 113 West 68th Street. His office hours are as follows: From September 1, 1933 to June 1, 1934, daily except Saturdays, 9 a.m. to 5 p.m.; Saturdays, 9 a.m. to 12 m. Other portions of the year, daily (except Saturdays), 9:30 a.m. to 4 p.m.; Saturdays, 9:30 a.m. to 12 m.

# Columbia University

in the City of New York

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ANNOUNCEMENT OF THE

## COLLEGE OF PHARMACY OF THE CITY OF NEW YORK

FOR THE WINTER AND SPRING SESSIONS

1933-1934



113-119 WEST 68TH STREET  
NEW YORK

This college reserves the right to make such changes in the curriculum, schedule, calendar, and regulations appearing in this Announcement, as circumstances may require.

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# 1933

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY		SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY								
<b>Jan.</b>	1	2	3	4	5	6	7	<b>May</b>	1	2	3	4	5	6	<b>Sept.</b>	1	2	3	4	5	6		
	8	9	10	11	12	13	14		7	8	9	10	11	12		13	7	8	9	10	11	12	13
	15	16	17	18	19	20	21		14	15	16	17	18	19		20	10	11	12	13	14	15	16
	22	23	24	25	26	27	28		21	22	23	24	25	26		27	17	18	19	20	21	22	23
<b>Feb.</b>	29	30	31	..	..	..	..	28	29	30	31	..	..	..	24	25	26	27	28	29	30		
	..	5	6	7	8	9	10	<b>June</b>	..	1	2	3	4	5	<b>Oct.</b>	1	2	3	4	5	6		
	12	13	14	15	16	17	18		6	7	8	9	10	7		8	9	10	11	12	13		
	19	20	21	22	23	24	25		13	14	15	16	17	15		16	17	18	19	20	21		
26	27	28	..	..	..	..	18		19	20	21	22	23	24		22	23	24	25	26	27	28	
<b>March</b>	..	5	6	7	8	9	10	<b>July</b>	25	26	27	28	29	30	..	<b>Nov.</b>	29	30	31	..	..	..	
	12	13	14	15	16	17	18		..	1	2	3	4	5	1		2	3	4	5	6	7	
	19	20	21	22	23	24	25		2	3	4	5	6	7	8		8	9	10	11	12	13	14
	26	27	28	29	30	31	..		9	10	11	12	13	14	15		15	16	17	18	19	20	21
<b>April</b>	..	9	10	11	12	13	14	<b>Aug.</b>	30	31	..	..	..	..	..	<b>Dec.</b>	29	30	31	..	..	..	
	16	17	18	19	20	21	22		..	1	2	3	4	5	..		..	..	..	..	..	..	
	23	24	25	26	27	28	29		6	7	8	9	10	11	12		3	4	5	6	7	8	9
	30	..	..	..	..	..	..		13	14	15	16	17	18	19		10	11	12	13	14	15	16

# 1934

<b>Jan.</b>	..	1	2	3	4	5	6	<b>May</b>	..	1	2	3	4	5	<b>Sept.</b>	..	1	2	3	4	5	6		
	7	8	9	10	11	12	13		6	7	8	9	10	11		12	6	7	8	9	10	11	12	
	14	15	16	17	18	19	20		13	14	15	16	17	18		19	13	14	15	16	17	18	19	
	21	22	23	24	25	26	27		20	21	22	23	24	25		26	16	17	18	19	20	21	22	
<b>Feb.</b>	28	29	30	31	..	..	..	27	28	29	30	31	..	..	23	24	25	26	27	28	29			
	..	4	5	6	7	8	9	10	<b>June</b>	..	1	2	3	4	5	<b>Oct.</b>	30	..	..	..	..	..		
	11	12	13	14	15	16	17	3		4	5	6	7	8	9		1	2	3	4	5	6		
	18	19	20	21	22	23	24	10		11	12	13	14	15	16		7	8	9	10	11	12	13	
25	26	27	28	..	..	..	17	18		19	20	21	22	23	14		15	16	17	18	19	20		
<b>March</b>	..	4	5	6	7	8	9	10	<b>July</b>	24	25	26	27	28	29	30	<b>Nov.</b>	28	29	30	31	..	..	..
	11	12	13	14	15	16	17	1		2	3	4	5	6	7	1		2	3	4	5	6	7	
	18	19	20	21	22	23	24	8		9	10	11	12	13	14	4		5	6	7	8	9	10	
	25	26	27	28	29	30	31	15		16	17	18	19	20	21	11		12	13	14	15	16	17	
<b>April</b>	..	1	2	3	4	5	6	7	<b>Aug.</b>	22	23	24	25	26	27	28	<b>Dec.</b>	25	26	27	28	29	30	..
	8	9	10	11	12	13	14	..		1	2	3	4	5	..	..		..	..	..	..	..		
	15	16	17	18	19	20	21	5		6	7	8	9	10	11	2		3	4	5	6	7	8	
	22	23	24	25	26	27	28	12		13	14	15	16	17	18	9		10	11	12	13	14	15	

# 1935

<b>Jan.</b>	..	1	2	3	4	5	6	<b>May</b>	..	1	2	3	4	5	<b>Sept.</b>	1	2	3	4	5	6	7	
	6	7	8	9	10	11	12		5	6	7	8	9	10		11	8	9	10	11	12	13	14
	13	14	15	16	17	18	19		12	13	14	15	16	17		18	15	16	17	18	19	20	21
	20	21	22	23	24	25	26		19	20	21	22	23	24		25	22	23	24	25	26	27	28
<b>Feb.</b>	27	28	29	30	31	..	..	26	27	28	29	30	31	..	29	30	..	..	..	..	..		
	..	3	4	5	6	7	8	9	<b>June</b>	..	1	2	3	4	5	<b>Oct.</b>	..	1	2	3	4	5	
	10	11	12	13	14	15	16	..		6	7	8	9	10	6		7	8	9	10	11	12	
	17	18	19	20	21	22	23	9		10	11	12	13	14	15		13	14	15	16	17	18	19
24	25	26	27	28	..	..	16	17		18	19	20	21	22	20		21	22	23	24	25	26	
<b>March</b>	..	..	..	..	..	..	..	<b>July</b>	23	24	25	26	27	28	29	<b>Nov.</b>	27	28	29	30	31	..	..
	..	3	4	5	6	7	8		9	30	..	..	..	..	..		..	..	..	..	..	..	..
	10	11	12	13	14	15	16		..	1	2	3	4	5	6		..	1	2	3	4	5	6
	17	18	19	20	21	22	23		7	8	9	10	11	12	13		10	11	12	13	14	15	16
<b>April</b>	24	25	26	27	28	29	30	<b>Aug.</b>	14	15	16	17	18	19	20	<b>Dec.</b>	24	25	26	27	28	29	30
	..	1	2	3	4	5	6		21	22	23	24	25	26	27		..	..	..	..	..	..	..
	7	8	9	10	11	12	13		28	29	30	31	..	..	..		1	2	3	4	5	6	7
	14	15	16	17	18	19	20		..	1	2	3	4	5	8		9	10	11	12	13	14	

# OFFICERS AND TRUSTEES

## OFFICERS

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ELEANOR KERKER . . . . .	<i>Assistant Registrar</i>
MESSRS. SULLIVAN & CROMWELL, 49 Wall St., New York, N. Y. . . . .	<i>Counsel</i>

MARSTON TAYLOR BOGERT  
Representing the University

## TRUSTEES

ADOLPH HENNING, 1934	WILLIAM J. SCHIEFFELIN, JR., 1935
J. LEON LASCOFF, 1934	ALBERT E. STRATTON, 1935
S. BARKSDALE PENICK, 1934	PASCAL M. EVERTS, 1936
JOSEPH PERSONENI, 1934	CHARLES J. McCLOSKEY, 1936
RICHARD H. TIMMERMANN, 1934	NATHANIEL NICOLAI, 1936
WILLIAM S. GORDON, 1935	HERMAN WALTER, 1936
FREDERICK K. JAMES, 1935	AUGUST WASSERSHEID, 1936
IRVING McKESSON, 1935	

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C. O. BIGELOW	CHARLES W. HOLTON
DAVID COSTELO	
Dean H. V. ARMY, <i>ex officio</i>	

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ADOLPH HENNING	
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AUGUST WASSERSHEID

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EDWARD PLAUT

Dean H. V. ARNY



# FACULTY OF THE COLLEGE OF PHARMACY

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GEORGE C. DIEKMAN, Ph.G., M.D. . . . .	<i>Secretary</i>

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HENRY H. RUSBY, M.D., Ph.M., Sc.D. . . . .	<i>Professor Emeritus of Materia Medica</i>
HENRY V. ARNY, Ph.D., Ph.M. . . . .	<i>Professor of Chemistry</i>
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HORACE M. CARTER, Ph.Ch., B.S. . . . .	<i>Associate Professor of Pharmacy</i>
HARRY TAUB, B.S. (Phar.), A.M. . . . .	<i>Assistant Professor of Materia Medica</i>
FREDERICK D. LASCOFF, Ph.G., A.B. . . . .	<i>Assistant Professor of Pharmacy in Charge of Commercial Pharmacy</i>
JACOB S. DORFMAN, Ph.G., A.M. . . . .	<i>Assistant Professor of Pharmacy</i>
ABRAHAM TAUB, B.S. (Phar.), A.M. . . . .	<i>Assistant Professor of Physics and Chemistry</i>
LESLIE JAYNE, B.S. (Phar.) . . . . .	<i>Assistant Professor of Chemistry</i>

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JOSEPH P. MIALE, Ph.Ch., B.S. . . . .	<i>Instructor in Pharmacy</i>
SAMUEL LIBERMAN, B.S. (Phar.) . . . . .	<i>Instructor in Chemistry</i>
VICTOR LEWITUS, Ph.G., A.M. . . . .	<i>Instructor in Materia Medica</i>
RUDOLF HAUCK, B.S. (Phar.), A.M. . . . .	<i>Instructor in Pharmacy</i>
HERMAN J. AMSTERDAM, Ph.G., A.M. . . . .	<i>Instructor in Pharmacy</i>
CHARLES H. SOREN, Ph.G., B.S. . . . .	<i>Instructor in Chemistry</i>
EDWARD ANZELMI, Ph.Ch., B.S. . . . .	<i>Instructor in Chemistry</i>
HORACE T. F. GIVENS, B.S. (Phar.) . . . . .	<i>Instructor in Chemistry</i>
ROBERT A. STAUBER, B.S. (Phar.) . . . . .	<i>Instructor in Materia Medica</i>

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GEORGE D. MCJIMSEY, A.M. . . . .	<i>Lecturer in English</i>
ARTHUR H. INGENHUETT, A.M. . . . .	<i>Lecturer in German</i>
DENTON R. BEDFORD, M.S. . . . .	<i>Lecturer in History</i>
DAVID SOLE, A.B. . . . .	<i>Lecturer in Mathematics</i>
ARTHUR W. POLLISTER, Ph.D. . . . .	<i>Lecturer in Zoölogy</i>

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CHARLES C. WILLIAMSON, Ph.D., Litt.D. . . . .	<i>Director of University Libraries</i>
ROGER HOWSON, M.A. . . . .	<i>Librarian</i>
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CHARLES W. BALLARD, Ph.Ch., A.M., Ph.D. . . . .	<i>Librarian of the College of Pharmacy</i>
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HENRY LEE NORRIS, M.E. . . . .	<i>Director of Works</i>
CLARENCE E. LOVEJOY, A.B. . . . .	<i>Alumni Secretary</i>

## COLUMBIA UNIVERSITY

Columbia University was founded in 1754 as King's College by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its active work; but in 1784 it was reopened as Columbia College. In 1912, the title was changed to Columbia University in the City of New York.

The University at the present time consists of Columbia College, the undergraduate college of liberal arts, which offers a program of studies leading to the degree of Bachelor of Arts; the School of Law, with courses leading to the degrees of Bachelor and Master of Laws and Doctor of Law (Doctor Juris); the College of Physicians and Surgeons with courses leading to the degrees of Doctor of Medicine and Master of Science; the School of Engineering, with courses leading to the Bachelor of Science degree, the several engineering degrees and the degree of Master of Science; the School of Architecture, with courses leading to the degree of Bachelor of Architecture and Master of Science; the School of Journalism, with courses leading to the degree of Bachelor of Science; the School of Business, with courses leading to the degrees of Bachelor and Master of Science; the School of Dental and Oral Surgery, with courses leading to the degree of Doctor of Dental Surgery; the School of Library Service, with courses leading to the degrees of Bachelor of Science and Master of Science; Seth Low Junior College offering two and three years of collegiate work in preparation for admission to professional schools or to more advanced work in liberal arts and sciences in Columbia University; the non-professional Graduate Faculties of Political Science, Philosophy, and Pure Science, with courses leading to the degrees of Master of Arts and Doctor of Philosophy.

In addition to these schools and faculties, the University includes the independent corporations of Barnard College (1889), the undergraduate college for women, with courses leading to the degree of Bachelor of Arts; Teachers College (1898), including the Faculties of Education and Practical Arts, with courses leading to the degrees of Bachelor of Science, Master of Arts and Master of Science, and New College with courses leading to the degree of Bachelor of Science; the College of Pharmacy of the City of New York (1904), with courses leading to the degrees of Bachelor of Science and Doctor of Pharmacy; St. Stephen's College, Annandale, New York (1928), an undergraduate college for men with courses leading to the degree of Bachelor of Arts; Union Theological Seminary (1928), whose faculty conducts certain University work leading to the degree of Master of Arts; and the New York Post Graduate Medical School (1931), which offers advanced work in medicine.

The University maintains three sessions during the year: The Winter Session, beginning the last Wednesday of September and ending the first Tuesday of February; the Spring Session, beginning the first Wednesday of February and ending the second Wednesday of June; and the Summer Session of six weeks' duration, beginning immediately after July 4. Through its system of University Extension the opportunity is offered to men and women to pursue subjects included in a liberal education and to take courses toward a diploma or an academic degree. Home Study courses are also offered to persons who are unable to take work in residence.

## STUDENTS

A student who has fulfilled the preliminary qualifications for candidacy for a degree, certificate, or diploma in regular course is enrolled as a matriculated student of the University. Acceptance is based on grounds of character and health as well as on the fulfillment of academic requirements. A period of regular attendance upon all stated academic exercises amounting to at least one academic year must be completed by every candidate for a degree.

Students prevented by conscientious scruples from complying with academic requirements which may be fulfilled only upon days set apart by their church for religious observance should make application to the appropriate authority for equitable relief.

In exceptional circumstances a student not enrolled as a matriculated student may be admitted to the University as a non-matriculated student with permission to attend such courses of instruction as he is qualified to take but not as a candidate for a degree, certificate, or diploma in regular course. Non-matriculated students are expected to conform to the same standards of attendance and scholarship as are required of matriculated students. Non-matriculated students may receive formal statement of the satisfactory completion of any course.

## ACADEMIC DISCIPLINE

The continuance of each student upon the rolls, the receipt by him of academic credits, his graduation, or the conferring of any degree or the granting of any certificate are strictly subject to such exercise of the disciplinary power of the University as may be necessary to enforce the rules of the University and to maintain standards of personal conduct and character acceptable to the University. In the exercise of academic discipline, the student's conduct outside as well as inside the University will be taken into consideration. The disciplinary authority of the University is vested in the President in such cases as he deems proper, and subject to the reserve powers of the President, in the Dean of each Faculty and the Director of the work of each Administrative Board.

## WITHDRAWAL

An honorable discharge will always be granted to any student in good academic standing, and not subject to discipline, who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the proper Dean or Director. Students withdrawing are required to notify the Registrar immediately.

The Dean of the school or faculty concerned may, for reasons of weight, grant a leave of absence to a student in good standing.

## ANNOUNCEMENTS

The Announcements of each college or school, of the Summer Session, of University Extension, and of the several divisions under which the departments of

instruction are grouped, may be obtained without charge from the Secretary of the University.

The Announcement of each school contains a schedule of fees and expenses for the courses in that school.

#### LIBRARY

The Library of the University contains about 1,350,000 volumes, exclusive of unbound pamphlets. The various departments of instruction have also special libraries in connection with their lecture rooms and laboratories. The Avery Architectural Library, the law library, the Ella Weed Library of Barnard College, Teachers College library, and the libraries of the College of Physicians and Surgeons, the School of Dental and Oral Surgery, and the College of Pharmacy, are all available to students of the University.

#### PUBLIC LIBRARIES

Students may use any of the public libraries of Greater New York. The central library building of the New York Public Library at Fifth Avenue and 42d Street, houses one of the great reference libraries of the country, containing nearly 2,000,000 volumes and including much material not found in the University Library. Books in the reference department of that library may be used only within the building. Because of crowded conditions students are expected to do their work in the University libraries. However, if material needed by a graduate student is not in the University Library, he should take a card from his departmental librarian to the Public Library. Books in the central circulation branch (42d Street entrance) and in other branches may be borrowed for home use by students who obtain a Public Library card. A sub-branch of the Public Library is maintained in Room 108A of the Columbia University Library. Other branches in the vicinity of the University are: West 115th Street, near Seventh Avenue; West 100th Street, near Amsterdam Avenue; and George Bruce Branch, 518 West 125th Street.

#### RESIDENCE HALLS

All students registered within the University regularly pursuing their courses of study are eligible for residence in University Residence Halls. The University desires its students to live whenever possible in the Residence Halls which are a part of the educational development and life of Morningside Heights. These Halls, owned and controlled by the University, are located on or immediately adjacent to the Campus, afford easy access to library and laboratories, and should provide for students companionship with persons of like interest. Within several of the Residence Halls and in the University Commons, dining rooms are maintained by the University and administered by skilled dieticians. Infirmaries are maintained for the exclusive use of students in the Residence Halls. Assignment of room is made on the academic year basis but rentals may be paid on session, monthly, or in case of need, weekly basis.

Application blanks for rooms and copies of Residence Halls Announcements, giving floor plans and dormitory regulations, will be furnished on request by the Secretary of the University, 213 Library.

*Residence for Men*

Residence for men may be had in Furnald Hall where a majority of the residents are graduate students or members of the Law School, or in John Jay Hall in which students from all the schools of the University find residence, or in Livingston Hall primarily a graduate dormitory, or in Hartley Hall primarily an undergraduate dormitory. Rates for single rooms within these dormitories for the academic year range from \$128 to \$270; for the calendar year, from \$185 to \$295.

A special provision has been made for a low rate for such students as care to share their rooms. Four men are assigned to three rooms. Two rooms are used for bedrooms and one room for a study. The rate for each man is four dollars a week.

Students desirous of group residence within the University Halls are encouraged to carry out these plans in furtherance of the general policy of the University that University Residence Halls should in every way promote the social and academic life of its students.

A dining room and a grill are maintained in John Jay Hall. While these dining rooms are open to all members of the University they are used primarily by the men in residence on South Quadrangle. Meals are served at a fixed price and *à la carte*. Meals at fixed price may be had for \$7.65 per week.

The University infirmary for men is located on the top floor of John Jay Hall. The services of the infirmary are exclusively available to residents of the dormitories.

*Residence for Women*

Graduate and professional women within the University live in Johnson Hall where rooms and dining hall give admirable opportunity for group life. Ample social rooms are provided. The rates for single rooms in Johnson Hall are from \$190 to \$310 for the academic year. The rate for meals is \$7.00 per week for breakfast and dinner.

The University infirmary for women is located on the top floor of Johnson Hall. The services of the infirmary are exclusively available to residents of the dormitories.

Grants in aid are available for students under certain circumstances and assist materially in the reduction of the rates for the students who receive such aid.

*Bard Hall*

At the Medical School the University maintains in Bard Hall a Residence Hall with dining hall facilities for men and for women.

*Residence in Barnard College and Teachers College*

Barnard College maintains dormitories for undergraduate women. When space is available graduate women, particularly when graduates of Barnard College, will be received in residence. Dining facilities are provided for students in Barnard College.

Teachers College maintains five Residence Halls. In Whittier Hall rooms and dining facilities are offered for women students. In Seth Low Hall rooms without dining facilities are offered women students. Bancroft Hall, Grant Hall, and

Sarasota Hall contain apartments in which housekeeping can be carried on and which are especially adapted for the use of married students.

#### INTERNATIONAL HOUSE

Men and women students registered in colleges and schools within New York City, particularly students from foreign lands, find at International House, located near the University and under the control of its own Board of Trustees, a residence with dining facilities.

#### RESIDENCE BUREAU

Students who find it necessary to live outside of the University may obtain lists of inspected rooms and apartments at the University Residence Bureau.

#### KING'S CROWN HOTEL

The King's Crown Hotel, located at 420 West 116th Street, in close proximity to the University is owned by the University and operated by the Knott Hotels Corporation. It provides accommodations at reasonable rates, available for relatives and guests of members of the University community.

#### EARL HALL

Earl Hall was given to Columbia University by the late William Earl Dodge for the religious and social activities of the students. On the main floor, reached by the Campus entrance, are the offices of the Director of Earl Hall (Men's Residence Halls Office), the Residence Bureau and the Secretary of Appointments. On the upper floor are the offices of the Chaplain of the University and his staff. An auditorium seating 400 people is used by musical and dramatic organizations. The lower floor, entered from Broadway, is occupied by the offices of the University Medical Officer.

#### GYMNASIUM

The Gymnasium is completely fitted with gymnastic apparatus and contains a swimming pool, baths, rooms for rowing, fencing, boxing and wrestling, and hand-ball courts. It is open daily to male students of the University during the academic year, except on Sundays and legal holidays. Every student is entitled to a physical examination by the University Medical Officer. On the basis of this examination, advice is given as to the kind and amount of exercise best adapted to his needs. Barnard Hall, of Barnard College, and Thompson Hall, of Teachers College, are thoroughly equipped with physical training facilities for women students.

#### MEDICAL SERVICE

The University Medical Officer has direct supervision of all matters affecting the health of the student body. All cases of illness, especially communicable diseases, must be promptly reported to him. Absence from classes due to illness must also be reported to his office. The University Medical Officer, and the members of his staff, hold office hours daily in Earl Hall for consultation with students.

Members of the University who need medical attention at home, and who desire to be advised concerning private physicians, specialists, and nursing care, will receive such information upon applying at the office of the University Medical Officer.

# THE COLLEGE OF PHARMACY

## IMPORTANT ANNOUNCEMENT

### STATE BOARD REQUIREMENTS

It has been agreed among all the important state boards of pharmacy in the United States, with the exception of New York, that the degree of Graduate in Pharmacy, awarded for a course of less than four years will not be accepted from graduates matriculating after January 1, 1932. In certain of the states there is an additional demand that the college instruction be spread over five days of the week. It follows that students matriculating in the pharmacy schools of this state must pursue some other course than the Ph.G. course of three years, if they wish their diplomas to be recognized in other states. Our University Course of four years leading to the degree of Bachelor of Science in Pharmacy (see page 17) is more than equivalent to the four-year course required by other states. This course provides 3808 hours of instruction during four years of 32 weeks each, the work occupying five days of each week.

### GENERAL STATEMENT

The one hundred and fourth annual session of the College of Pharmacy, open to both men and women, will begin on Monday, September 18, 1933.

### THE COLLEGE BUILDING

The location of the College is at one of the most readily accessible points in the city. Within two blocks are stations of the elevated and underground railroads, and the Broadway, Columbus, and Amsterdam Avenue lines connect with nearly all surface lines in the city. The central buildings of the University are reached within fifteen minutes from the door of the College.

The College building was erected in 1894, after a study of the principal buildings of the kind in this country and abroad. So great has been the increase in the applications for admission that it was found necessary in 1923 to provide greater accommodations in the form of an additional connecting building. This provides greatly increased and improved facilities for the work of the University classes. In connection with the latter, extensive provision has been made for research work, by both Faculty and special students. Our library has also been greatly improved, the entire lower floor of the newer building having been reserved for its accommodation.

### THE LIBRARY

The library is in charge, during College hours, of a trained librarian, who is ready to offer any assistance desired by readers. It contains the important works of reference required in the different departments of instruction, and for the various branches of science taught in the College of Pharmacy. It covers, indeed, a very broad field in all departments of chemistry, botany, and pharmacy.

Should the resources of the College be insufficient for some special purpose, the student has recourse to such great library storehouses as the general Library of



Columbia University on Morningside Heights, libraries of the College of Physicians and Surgeons, School of Dental and Oral Surgery, the New York Academy of Medicine, the New York Botanical Garden, and others, and he will also be able, by special arrangement, to borrow from the great library of the Surgeon-General's office at Washington.

The library contains an extensive series of periodicals on chemistry, pharmacy, and botany, with their allied branches. All important journals relating to the work of the College are regularly received.

During regular College hours the library is accessible not only to officers and students of the College, but also to the pharmacists of the city. Under certain regulations, books may be borrowed for outside use, but for obvious reasons important works of reference and unbound periodicals are not loaned. Library copies of the textbooks in use by the College may not be removed from the library.

#### INFORMATION BUREAU

The information bureau conducted by the library staff is designed to furnish pharmacists with data required in emergencies and not available in the library of the average drug store. During the past years of operation the bureau has met with gratifying success, and it is steadily growing in popularity.

The following paragraphs explain the methods employed in conducting the service:

1. Telephone inquiries will be answered without charge. Residents of Greater New York or vicinity wishing to inquire about some pharmaceutical problem will call up the information bureau, Trafalgar 7-1733, and will receive information immediately if it is accessible.

2. Non-residents will have their problems answered by mail if they enclose a self-addressed stamped envelope.

3. Problems requiring extended research will be handled for a fee as moderate as consistent with high-grade service.

4. Translations of articles from foreign languages, either in full or in abstract, as well as transcripts of papers appearing in English or American pharmaceutical, chemical, or botanical periodicals will be prepared for those desiring to pay for such service.

5. Visitors to the library, desiring to do their own research work, will be given courteous attention.

#### STUDENT EMPLOYMENT

The Registrar, so far as possible, assists students to secure such positions, in and about the city, as will not prevent them from regularly attending the College exercises.

Any student wishing to secure employment should, upon entering the College, communicate with the Registrar.

#### APPLICATION FOR ADMISSION

Every candidate for admission to the College of Pharmacy is required to file with the Registrar of the College a personal application and a transcript of his high

school record, blank forms for which can be had upon application. He is also required to file an approval of his application for a pharmacy student qualifying certificate *before he can be accepted*, and he must secure the apprentice license before his matriculation can be considered complete.

#### NEW YORK STATE QUALIFYING CERTIFICATE

To be entitled to a pharmacy student qualifying certificate, the applicant must be at least seventeen years of age, and must have been graduated from an accredited four-year high school course, or have covered courses acceptable to the Department of Education as a full equivalent thereof. A high school or other secondary school course of study will not be considered acceptable unless the applicant has received the school diploma, and unless his or her record includes:

English, four years.

Science, two years.

Mathematics, two years.

Foreign language, two years.

History, one year.

Physiology, one-half year (unless the two years of science include biology or general science).

Civics, one-half year.

Sufficient electives to make up a full four-year course aggregating 15 units.

The fulfillment of these requirements must be officially guaranteed by a qualifying certificate issued by the New York State Department of Education. If the applicant is entitled to receive the certificate, he will be so notified by a letter which should be presented to the Registrar of the College of Pharmacy. Blank forms for making application for the certificate may be secured either from the Registrar's office or from the Department of Education at Albany.

#### APPRENTICE LICENSE

The apprentice license should be applied for when the candidate commences his experience in a pharmacy or drug store. Those who have had no experience before entering the pharmacy school, or whose experience has been in a drug store or pharmacy outside of New York State, will make application for their licenses through the school during the first week of the course, the Registrar acting as "preceptor." Blank forms for making application for the apprentice license may be secured either from the Registrar's office or from the Board of Pharmacy at Albany, New York.

#### HEALTH CERTIFICATE

All applicants for admission to any of the courses given must present an acceptable certificate of health from the candidate's family physician or from the University Medical Officer. In case of doubt an examination by the University Medical Officer will be required. Appropriate blanks are furnished by the Registrar of the College.

## COURSES OFFERED

Two regular courses of study are offered, known respectively as the College Course and the University Course, and three evening courses in the Departments of *Materia Medica*, Pharmacy, and Chemistry.

## THE COLLEGE COURSE

This course now comprises three full years of professional work, and is designed to fit the graduate for meeting the educational requirements of the State Board. Attention is directed to the first paragraph on page 14 under the heading, "State Board Requirements." The precise object of a course leading to the degree of Graduate in Pharmacy being to prepare such graduates for meeting the conditions of service in a retail pharmacy, a large amount of time is assigned to the Department of Pharmacy, and to those features of the work of the other departments which have a direct bearing on practical pharmacy.

## THE UNIVERSITY COURSE

The Department of Health of the City of New York has placed the Bachelor of Science in Pharmacy, graduating from this course, in the position of being eligible to conduct a bacteriological laboratory or to fill similar positions.

The attention of prospective students is directed to the increasing call for graduates of advanced courses, to fill other professional positions. The general application of Federal, state, and municipal food and drug laws is creating a demand for thoroughly trained pharmaceutical inspectors and analysts. The obligations thus imposed upon manufacturers and merchants must result, and are doing so, in compelling them to employ scientifically trained assistants for responsible services which formerly were often left to incompetent and irresponsible employees. For this field of service the ordinary graduate in pharmacy is wholly unqualified.

To meet these higher requirements, four- and six-year courses of study, leading respectively to the degrees of Bachelor of Science in Pharmacy (B.S. in Phar.), and Doctor of Pharmacy (Phar.D.) are offered.

In response to inquiries frequently received as to the advantages of the University Course over the College Course, the following synopsis has been prepared:

1. To members of the University Class only are open certain of the University privileges.

2. The University Class attends on five days weekly, and the course includes regular work in academic subjects, conducted by instructors approved by the Director of University Extension of Columbia University.

3. For the University Class, the College provides a thorough course of laboratory instruction in advanced chemistry, pharmacy, and physics and special courses in zoölogy, microscopy and bacteriology, consisting of both theoretical and laboratory instruction.

4. Our graduate course, leading to the degree of Doctor of Pharmacy, is open only to graduates of the four-year University Course.

5. Not only is the degree of Bachelor of Science recognized as of higher rank than that of Graduate in Pharmacy, but the four-year course is the one demanded for licensure in pharmacy in many of the states of the Union.

## GRADUATE COURSE

This course, leading to the degree of Doctor of Pharmacy, is open to graduates with the baccalaureate degree, conferred by this college or by other schools of pharmacy maintaining equivalent courses of study. The course consists of two full years of study in residence. Thirty hours weekly are occupied in research work in the department representing the major subjects, and three hours weekly in each of the other two departments. For this session, not more than two students will be matriculated in each of the three departments.

## ENTRANCE REQUIREMENTS

## COLLEGE COURSE

To be eligible for admission, the candidate must be at least seventeen years of age, and must meet the requirements for the pharmacy student qualifying certificate, as outlined on page 16.

## THE UNIVERSITY COURSE

This course of four full academic years (September to June) leads to graduation with the other departments of the University, and to the degree of Bachelor of Science in Pharmacy, conferred by the University.

The requirements for admission to this course are the same as those for Columbia College. The student must be seventeen years of age, must have graduated from a high school within or outside of the state of New York that is accredited by the Education Department of this state, and must present a pharmacy student qualifying certificate from the Education Department of this state, as outlined on page 16.

Applications for admission to the 1933-1934 session of the University Course should be filed on or before September 5, 1933.

The evidence of adequate preparation for admission to the University Course in the subjects required on the part of candidates who have not completed a year of college work, *includes both examination and school records.*

The subjects which candidates may offer in fulfillment of these requirements are outlined below. (A "unit" implies the study of the subject for a time equivalent to five hours weekly for one year.)

## PRESCRIBED SUBJECTS

All candidates *must* offer:

English	{	1 (grammar and composition) . . . . .	2 units
		2 (literature) . . . . .	1 unit
Mathematics	{	<i>ai</i> (algebra to quadratics) . . . . .	1 unit
		<i>aii</i> (quadratics and beyond) . . . . .	1 unit
		<i>c</i> (plane geometry) . . . . .	1 unit

## EITHER

(1) Latin<sup>1</sup> . . . . . 4 units

<sup>1</sup>Greek, 3 units, may be substituted for Latin, in which case 6 elective units must be offered.

## OR

(2)	{	Latin, Greek, French, German, Spanish or Italian . . . . .	3	}	5 units
		Physics or chemistry . . . . .	1		
		History . . . . .	1		
Elective Subjects, to make up 15 units . . . . .					4 or 5 units

## ELECTIVE SUBJECTS

*Group I*

The candidate may offer any of the following subjects not included among his prescribed subjects, without other restriction than that to offer an advanced subject will involve offering, either at the same time or earlier, the corresponding elementary subject.

Biology—See Zoölogy	
The English Bible . . . . .	1 unit
Elementary Greek . . . . .	2 or 3 units
Elementary history . . . . .	1 or 2 units
Drawing (freehand or mechanical) . . . . .	1 unit
Music . . . . .	1 unit
Intermediate French . . . . .	1 unit
Intermediate German . . . . .	1 unit
Intermediate Italian . . . . .	1 unit
Intermediate Spanish . . . . .	1 unit
Advanced French . . . . .	1 unit
Advanced German . . . . .	1 unit
Social science . . . . .	1 unit
Advanced Spanish . . . . .	1 unit
Advanced mathematics (College) . . . . .	½, 1 or 1 ½ units
And in the case of candidates not offering 4 units in Latin:	
Elementary Latin . . . . .	2 or 3 units

*Group II*

The candidate may offer not more than 4 units in all from the four subjects following:

Elementary French . . . . .	2 units
Elementary German . . . . .	2 units
Elementary Italian . . . . .	2 units
Elementary Spanish . . . . .	2 units

*Group III*

The candidate may offer not more than 3 units in all from the six subjects following:

Botany . . . . .	1 unit
Chemistry . . . . .	1 unit
Physics . . . . .	1 unit
Physiography . . . . .	1 unit
Shopwork . . . . .	1 unit
Zoölogy . . . . .	1 unit

## NEW METHOD

Under the "new method," candidates whose school and character records are entirely satisfactory, may meet the examination requirements by means of a psychological test. The school course must include three units in English, three in mathematics (elementary and intermediate algebra and plane geometry), and at least three units in a foreign language, ancient or modern. It must have been concerned primarily with languages, science, mathematics, and history.

## OLD METHOD

Under the "old method," the examination requirements for admission may be satisfied by any one of the three following means, or any approved combination thereof:

1. By the examinations of the College Entrance Board, held in June of each year at Columbia University and at about 150 other educational centers in the United States and abroad.

2. By the examinations conducted at Columbia University in September of each year, by the Director of University Admissions.

(The examination grades in connection with the above two methods are interpreted in the light of the record which students have made in school.)

3. By the examinations given in the high schools by the Education Department of the state of New York to students who have satisfactorily completed certain courses in these high schools. In these examinations, 75 per cent will ordinarily be regarded as the lowest passing mark.

For candidates qualifying for admission on the basis of examinations before Columbia University or the College Entrance Board, two methods are open:

*a. Examination in Fifteen Units.* A candidate may offer examinations in fifteen units as evidence of his preparation in secondary school subjects.

*b. Four-Examination Plan.* A candidate who has completed a satisfactory secondary school course with a high degree of proficiency may, by special permission, satisfy the examination requirement by means of "comprehensive examinations" in not less than four subjects including those prescribed for admission.

Candidates entering by the old method are required to take the psychological examination for purposes of record only.

Those contemplating the September, 1933, examinations, must file their applications with the Secretary of Columbia University on or before the first Monday in September. Those who contemplate taking the June, 1934, examinations, must file their applications with the Secretary of the College Entrance Board at 431 West 117th Street, New York City, early in May. Blank forms of application for either series of examinations may be secured from the respective secretaries.

Every candidate for admission to the University Course should secure a copy of the current Announcement of Entrance Examinations and Admission which may be had upon application to the Secretary of the University.

## ADMISSION TO ADVANCED STANDING

Candidates may be admitted to advanced standing only upon a satisfactory record from their school of previous residence. Provided they are eligible for the

pharmacy student qualifying certificate required by the New York State Department of Education, candidates who have completed, without condition, corresponding courses in a pharmacy school registered by the State Education Department, are eligible for admission to the second, third, or fourth years, respectively.

### FEES

The fees to be paid by students are subject to change at any time in the discretion of the Trustees. The following schedule is in force for the 1933-1934 session or for the students accepted in any of the regular courses leading to degrees.

#### COLLEGE COURSE (FIRST, SECOND, AND THIRD YEARS)

Registration fee . . . . .	\$5
Student activities . . . . .	10
Breakage deposit . . . . .	10
Examination fee . . . . .	10
Tuition . . . . .	250
Laboratory fees . . . . .	45

#### UNIVERSITY COURSE

	<i>First and Second Years</i>	<i>Third Year</i>	<i>Fourth Year</i>	<i>Graduate Years</i>
Registration fee . . . . .	\$5	\$5	\$5	\$5
Student activities . . . . .	10	10	10	
Breakage deposit . . . . .	10	25	25	25
Examination fee . . . . .	10	10	15	20
Tuition . . . . .	300	300	300	350
Laboratory fees . . . . .	60	60	60	60

*Special Courses.* Students desiring to pursue individual courses as special students will be required to pay *pro-rata* charges.

*Summer Courses.* The fee for any laboratory course is \$25 for first, second, and third year work in the College Course. In the University Course, the fee is \$25 for first and second year work and \$50 for third and fourth year work.

*Evening Courses.* The fees for the various evening courses will be found among the descriptions of these courses, beginning on page 46.

*Books and Supplies.* It is estimated that an expenditure of \$50 will cover the cost of the textbooks and necessary apparatus required for the entire College Course, and of \$75 for the entire University Course for the B.S. degree. The heaviest expenditure in all cases will be in the first year; many of the required reference works being used also in subsequent years.

#### METHODS OF PAYMENT

##### *Regular Courses*

One of three methods for the payment of the tuition fee for the year may be elected by the candidate, as indicated below. In this connection, it is to be noted

that all are required to pay the registration fee, the breakage deposit, the student activities fee and the first installment of the tuition fee at the time of registration. The dates for registration in the various classes will be found in the academic calendar on page 61.

A. Pay in full at the time of registration.

B. Pay one half of the tuition fee at the time of registration, and the balance on or before January 8, 1934. Under this arrangement, an additional \$3 must be added to the first installment.

C. Pay one third of the tuition fee at the time of registration; one third on or before December 4, 1933, and the balance on or before February 5, 1934. Under this arrangement, an additional \$5 must be added to the first installment.

A student electing plan B or C makes himself liable to suspension from further attendance if he fails to meet the payments when due.

Second, third, and fourth year students, who register after the last day set for their registration (see Academic Calendar) are required to pay an additional fee of \$5 for late registration.

*Examination Fees.* Dates upon which fees for examination in course are required will be found in the Academic Calendar.

The rate for reexamination is on the basis of \$5 for each subject in September and \$10 for the entire series in the spring.

*Rebates.* The registration and student activities fees shall not be subject to rebate.

In the case of the total withdrawal of a student from the College, a partial return of the tuition fee may be authorized by the Trustees, but in no case shall more than two thirds of the total charge for that year be returned.

*Special, Summer, and Evening Courses.* Students registering in any of these courses are required to pay the tuition and other fees *in advance*.

## METHOD OF INSTRUCTION

The instruction of each class during the first and second years of the College Courses occupies three days of the week, the alternate days being free for practical experience in the pharmacy. This arrangement provides a source of income, which is a necessity for many of the students of the College. During the third year, an additional half-day must be devoted to work in the pharmacy laboratory. All students who can do so are urged to devote their third year wholly to College work.

For the purpose of more fully elucidating the subjects presented in the lectures and laboratories and of familiarizing the students therewith, and as a test of attention and progress, provision is made for a complete series of recitations or quizzes by a corps of qualified instructors. The order of topics and the manner of their treatment at these recitations follow closely the courses of instruction given by the professors in the respective departments. In order that all the members of the class may be drilled as often and as thoroughly as possible, the classes are divided into sections, the instruction of each section being identical, but conducted at different hours.



## REGULATIONS OF THE BOARD OF TRUSTEES

The rules and regulations stated in this Announcement and those posted on the bulletin boards, signed by the Chairman of an authorized committee, or by the Dean, will govern all students of this College until a new Announcement is issued.

## THE DEAN

The Dean is the Executive Officer of the Faculty. It is his duty, under the direction of the President, to enforce the rules of the Faculty and of the Board of Trustees and to administer discipline in the case of their violation.

Ordinarily the Dean will be found in his office at the hours given below. As he is frequently called out of the city, it is advisable to make important appointments by telephone.

*During College Term*

Tuesday at 11 a.m.

Wednesday, Friday, and Saturday at 10 a.m.

*During Summer Vacation*

Tuesday, Thursday, and Saturday at 10 a.m.

## REQUIREMENTS FOR ALL REGULAR STUDENTS

*Attendance*

Students are particularly requested to be in attendance at the commencement of the course, in order to obtain full benefit from the lectures. No student will be admitted more than two weeks after the opening of the term, and no member of the third and fourth year classes will be admitted later than one week after the opening, except by special permission of the Faculty.

Every student must attend during at least 90 per cent of the periods assigned to each course pursued. For being late twice at daily opening, the student will be charged with one absence.

*For failure to meet this requirement, the student forfeits the privilege of presenting himself for examination in the course or courses in which the excessive absences occurred.*

*Advancement in Classes*

Advancement from one class to the next requires that the student successfully pass an examination in all the subjects taught during the preceding year, the passing mark being 75 per cent, although the Faculty may admit a student to the next class conditioned in a single subject. It is to be particularly noted that in deciding upon the qualifications of candidates, their term's work and their character as students will be given due consideration.

Those students who fail to pass these examinations will be allowed to undergo supplementary examinations to be held as announced on page 61, provided, however, that they did not fail in a majority of their subjects. Students failing in a majority of their subjects will be required to repeat their entire course of that year, provided, however, that such students may be refused readmission if, in the judgment of the Faculty, they are not qualified to be students of this college. A student

who fails in a laboratory course must repeat such course successfully before being advanced to the higher class. This work must be done during the summer, except in special cases.

By a regulation of the State Education Department, students failing in more than two subjects must make good the deficiency at the school where they so failed. Applicants for the supplementary examination must notify the Registrar on or before September 1, 1933.

Candidates for admission to advanced standing must either pass examinations in all the subjects of the preceding year or must produce evidence of having passed successfully examinations equal thereto.

#### REQUIREMENTS FOR GRADUATION

Every person upon whom a degree is conferred by the College or the University must be of good moral character, and must have complied with all requirements for graduation.

Those who fail to appear for examination (after having handed in their names with the examination fee), or who do not pass satisfactorily, will be allowed to present themselves at the following spring examinations on paying an additional fee of \$10 and complying with all other requirements.

Any student who shall have failed three times in three or more subjects at the final examinations for graduation, shall be required to repeat the entire work of the final year before being again admitted to examination. Should the student again fail at the final examination and at the following supplementary examination, he will not be permitted to continue as a student, or to be examined again. Any student failing three times in one or two subjects, shall be required to repeat the entire work of the final year in such subject or subjects before being again admitted to examination.

All students must obtain a rating of 75 per cent or higher in every department in which they may be examined. Any student failing in one or more departments, but not in laboratory courses, may present himself for reexamination therein at the supplementary examination held in September, or at the next regular spring examination. If successful, he will be graduated without reexamination in the other departments. Failure in a laboratory course will necessitate the repeating of that course, which repetition must occur during the summer vacation, except in special cases. See schedule on page 46.

Students of the third year University Class failing in a laboratory course of a single department may be permitted to remove this failure during the Summer Laboratory Session. Students of this class failing in the laboratory courses of more than one department will be required to repeat in full those courses in which they fail, during the next regular session.

#### PRIZES, SCHOLARSHIPS, AND FELLOWSHIPS

Competition for the prizes, scholarships, and positions on the honor rolls is open only to those students who pursue their entire course at this college. Exceptions to this rule may be made in such awards open to competition by students of the University Classes only.

The College reserves the right to withhold the award of any scholarship or prize, if in its opinion, no candidate has exhibited qualifications justifying the award.

**HONOR ROLL.** The College Classes and the University Classes will have separate and distinct honor rolls.

*For the College Classes*, the roll is limited to thirteen candidates, provided all have secured a general average of 85 per cent or over, and the mean of the ratings secured in the three Departments of Pharmacy, Materia Medica, and Chemistry will be the basis of computation for the general average.

*For the University Classes*, the roll is limited to three candidates, provided all have secured a general average of 85 per cent or over, and the mean of the ratings secured in the four Departments of Pharmacy, Materia Medica, Chemistry, and the Cultural Courses will be the basis of computation for the general average.

**ALUMNI ASSOCIATION PRIZES.** The Alumni Fund of the College of Pharmacy provides annually for a gold, a silver, and a bronze medal to be presented at Commencement to the three students having respectively attained the first, second, and third highest standings in all branches taught during the third year of the College Course.

The association also provides for five additional prizes awarded annually on Alumni Day to members of the first and second year classes of the College Course, as follows: *Torsion Balance*, awarded to that second year student who has secured the highest standing during the work of the two years; a copy of *The United States Dispensatory* to that student who has secured the highest standing during the work of the second year; a copy of Rusby, Bliss, and Ballard, *Properties and Uses of Drugs* awarded to that student securing the second highest standing in the work of the second year; a copy of Arny's *Principles of Pharmacy* to that student who has secured the highest standing in the work of the first year, and a copy of Sadtler, Coblenz, and Hostmann's *Pharmaceutical Chemistry* to that student who has secured the second highest standing in the work of the first year.

In the event that the winner of the *Torsion Balance* has the highest record for the second year, then *The United States Dispensatory* and the *Materia Medica* will be awarded respectively to the second and third member of the honor roll.

**MAX J. BREITENBACH PRIZE.** A cash prize of \$200, accompanied by a certificate, offered annually for the highest proficiency in the junior (third year) University Class. This prize is provided for in perpetuity from the interest of funds bequeathed to the College by the late Max J. Breitenbach, for many years a devoted Trustee.

**DIKMAN PRIZE.** This prize was founded in 1930 by the Dante Circle, in honor of Dr. George C. Diekman, Professor Emeritus of Pharmacy. It consists of a gold charm, and is awarded to that member of the graduating class who has attained the highest average in the courses in theoretical pharmacy throughout the three years of the College Course.

**LOUIS DOHME PRIZE.** This is an annual cash prize of \$100, founded by Ernest Stauffen, in memory of Louis Dohme. It is awarded to that Graduate in Pharmacy who exhibits the best practical knowledge of the drugs of the United States Pharmacopoeia and National Formulary, as determined by the laboratory records and examinations.

**GERMAN APOTHECARY'S ASSOCIATION PRIZE.** In commemoration of its foundation in the year 1851, the German Apothecary's Association offers, annually, a gold medal to be awarded to that member of the graduating class who has exhibited during the final year of the College Course the greatest proficiency in the compounding of prescriptions.

**ITALIAN PHARMACEUTICAL ASSOCIATION PRIZE.** This Association offers annually a gold medal to that Graduate in Pharmacy who has obtained the highest general average in practical laboratory work during the third year.

**KAPPA PSI PRIZE.** The Gamma Chapter of the Kappa Psi Fraternity offers annually a gold medal to be awarded to that Pharmaceutical Chemist not receiving either the Breitenbach prize or the Seabury Scholarship who attains the highest standing throughout the three years of the course.

**LEHN and FINK PRIZE.** This prize consists of a gold medal, offered by Messrs. Lehn and Fink, of New York City, for the Graduate in Pharmacy attaining the highest average in the third year examinations in the Department of Pharmacy.

**LILLIAN LEITERMAN PRIZE.** A gold medal, offered annually by Miss Lillian Leiterman (1911), to that woman member of the graduating class who has maintained the highest standing throughout the entire three years of the College Course.

**NEW YORK STATE PHARMACEUTICAL ASSOCIATION PRIZE.** A year's membership offered by the Association to a member of the Honor Roll not winning any other prize.

**OLSHANSKY MEMORIAL MEDAL.** This is a gold medal, founded by the students of this college in attendance upon the session of 1923-1924, in memory of their beloved instructor, Jacob Calman Olshansky, whose death occurred during that academic year. This medal is to be awarded annually to that student who has attained the highest average in the final year of the College Course in the subject of dispensing pharmacy.

**GEORGE J. SEABURY SCHOLARSHIP.** This scholarship has been founded by Dr. Henry C. Lovis, in memory of his uncle, George J. Seabury, for many years a member and patron of the College. It provides for the tuition, during the senior (fourth) year of the University Course, of that member of this class who has maintained the highest standing during the three years.

**E. R. SQUIBB PRIZE.** This is an annual cash prize of \$100, offered by Messrs. E. R. Squibb and Sons, in memory of Dr. E. R. Squibb. It is awarded to that Graduate in Pharmacy who exhibits the greatest proficiency in analytical chemistry during his third year, as determined by the laboratory records.

**TRUSTEES' PRIZES.** The Board of Trustees offers annually, to be presented at Commencement, three prizes of \$100 each, for the highest rating secured in competitive examination in the three Departments of Chemistry, Pharmacy, and Materia Medica. These competitive examinations are open to those members of the graduating class who have attained positions on the honor roll of the College Course. If the number of these honor students be less than thirteen, a sufficient number of graduates having the next highest averages to make that number will be permitted to compete for these prizes. A certificate, stating the honor for which the prize has been awarded, is also presented to each of the recipients.

**TRUSTEES' SCHOLARSHIPS.** Six scholarships of the value of \$100 each are awarded annually by the Board of Trustees of the College. These are open to two members in each of the first and second years of the College Course and one member in each of the first and second years of the University Course, to be applied toward the tuition fee of the following session. The awards are made upon the recommendation of the Faculty and the office of the Treasurer, and applications therefor must be placed with the Registrar not later than February 1, 1934.

**JOSEPH WEINSTEIN PRIZE.** This prize consists of a gold medal and is offered by the New York Retail Druggists' Association, in memory of Dr. Joseph Weinstein. It is awarded to that Graduate in Pharmacy who has exhibited the greatest proficiency in analytical chemistry during the three years, as determined by the laboratory records.

**WESTCHESTER COUNTY PHARMACEUTICAL ASSOCIATION PRIZE.** This Association offers annually a gold medal to that member of the graduating class who has attained the highest general average in the practical laboratory work of the Department of Pharmacy during the three years of the College Course.

**ISAAC PLAUT FELLOWSHIP.** This fellowship for the encouragement of graduate study and original research was founded by Albert Plaut, in memory of his father, Isaac Plaut.

Candidates for this fellowship must have secured the degree of B.S. in Pharmacy at this college, and must also possess credit for a year's study of a foreign language, equivalent to that of the first year at Columbia College.

It provides for a year of study at a European school or university by that Bachelor of Science in Pharmacy of this college who will have shown during his full course of study here the greatest taste and aptitude for original investigation. Should no member of a class be deemed worthy of the award, it will be withheld.

The Fellow will be appointed by the Council of the University upon the nomination of the Trustees of the College of Pharmacy. He will attend a foreign institution to be selected by himself and approved by the Faculty of the College of Pharmacy, and will pursue a course of study approved by the Faculty. At the close of his incumbency he will present to the Faculty a written report of his work.

The fellowship payment will be made in three equal installments, one on June 15, one on November 1, and one on March 1, provided that the Fellow continues faithfully to pursue the work undertaken. In case of failure so to do, he will forfeit all further privileges and emoluments conferred upon him by his appointment to the fellowship, and the Trustees of the College of Pharmacy may declare the fellowship vacant.

## STUDENT ORGANIZATIONS

Under direction of the Student Activities Committee.

### THE STUDENT COUNCIL

#### FRATERNITIES AND SORORITIES

Kappa Psi	Delta Sigma Theta	Tau Delta Mu
Phi Delta Chi	Alpha Zeta Omega	Circolo Dante
Rho Pi Phi	Sigma Tau Epsilon	Lambda Kappa Sigma

## SOCIETIES

Maimon Society  
Rice Chemical Society

Menorah Society  
Chess and Checker Club

## ATHLETICS

Basket ball

Wrestling

## SYNOPSIS OF STUDIES FOR THE SESSION OF 1933-1934

## COLLEGE COURSE

*First Year*

		Class Hours	Laboratory Hours	Points
<i>Chm.</i> 1-2	General physics	3	0	6
<i>Chm.</i> 3-4	General chemistry (inorganic)	3	0	6
<i>Chm.</i> 5	General chemical laboratory	0	5 <sup>1</sup>	2½
<i>Chm.</i> 6	Analytical chemistry (qualitative)	0	5 <sup>1</sup>	2½
<i>M.M.</i> 1-2	Botany and pharmacognosy	3	0	6
<i>M.M.</i> 3-4	Botany laboratory	0	3	3
<i>Phr.</i> 1-2	Operative pharmacy (theory)	2	0	4
<i>Phr.</i> 3-4	Operative pharmacy (laboratory)	0	3	3
<i>Phr.</i> 5	Pharmaceutical arithmetic	2 <sup>1</sup>	0	2
<i>Phr.</i> 6	Pharmaceutical history and ethics	2 <sup>1</sup>	0	2

*Second Year*

<i>Chm.</i> 55-56	Inorganic chemistry (metals)	3½	0	7
<i>Chm.</i> 59-60	Analytical chemistry (acidic ions and volumetric)	0	3½	3½
<i>M.M.</i> 53-54	Pharmacognosy	0	3	3
<i>M.M.</i> 57-58	Human physiology and hygiene	2	0	4
<i>M.M.</i> 59-60	Microbiology	1	1	3
<i>Phr.</i> 51	Theory of pharmacy	2 <sup>1</sup>	0	2
<i>Phr.</i> 52	Pharmaceutical arithmetic	2 <sup>1</sup>	0	2
<i>Phr.</i> 53-54	Pharmaceutical Latin	1½	0	3
<i>Phr.</i> 55-56	Dispensing pharmacy	1	2½	4½
<i>Phr.</i> 61-62	Pharmaceutical economics	1	2	4

*Third Year*

<i>Chm.</i> 103-104	Organic chemistry	3	0	6
<i>Chm.</i> 107-108	Newer remedies	2	0	4
<i>Chm.</i> 109 (110)	Analytical chemistry (advanced volumetric and pharmacopœial assaying)	0	6 <sup>1</sup>	3
<i>M.M.</i> 101-102	Materia medica	3	0	6
<i>M.M.</i> 103-104	Toxicology	1	0	2
<i>M.M.</i> 109-110	Medical appliances and first aid	1	0	2
<i>Phr.</i> 101-102	Theoretical pharmacy	3	0	6
<i>Phr.</i> 103-104	Theoretical dispensing pharmacy	2	0	4
<i>Phr.</i> 105 (106)	Manufacturing pharmacy	0	6 <sup>1</sup>	3
<i>Phr.</i> 107-108	Dispensing pharmacy	0	4	4
<i>Phr.</i> 109-110	Pharmaceutical jurisprudence and economics	2	0	4

<sup>1</sup>During 16 weeks.

## UNIVERSITY COURSE

*First Year*

		Class Hours	Laboratory Hours	Points
<i>Chm. 1-2</i>	General physics	3	0	6
<i>Chm. 3-4</i>	General chemistry (inorganic)	3	0	6
<i>Chm. 7</i>	General chemistry (laboratory)	0	4 <sup>1</sup>	2
<i>Chm. 8</i>	Analytical chemistry (qualitative)	0	4 <sup>1</sup>	2
<i>Chm. 10</i>	Physics laboratory	0	4 <sup>1</sup>	2
<i>Phr. 1-2</i>	Operative pharmacy (theory)	2	0	4
<i>Phr. 3-4</i>	Operative pharmacy (laboratory)	0	3	3
<i>Phr. 5</i>	Pharmaceutical arithmetic	2 <sup>1</sup>	0	2
<i>Phr. 6</i>	Pharmaceutical history and ethics	2 <sup>1</sup>	0	2
<i>Eng. 1-2</i>	English	4	0	8
<i>Hist. 1-2</i>	American history	3	0	6

*Second Year*

<i>Chm. 55-56</i>	Inorganic chemistry (metals)	3½	0	7
<i>Chm. 57-58</i>	Qualitative inorganic analysis	0	3	3
<i>M.M. 1-2</i>	Botany and pharmacognosy	3	0	6
<i>M.M. 51-52</i>	Plant morphology and histology	0	4½	4½
<i>Zoöl. 51-52</i>	Zoölogy	1	2	4
<i>Phr. 57-58</i>	Dispensing pharmacy	0	3	3
<i>Eng. 51-52</i>	English	2	0	4
<i>Ger. 51-52</i>	German	4	0	8
<i>Math. 51</i>	Algebra	3 <sup>1</sup>	0	3
<i>Math. 52</i>	Trigonometry	3 <sup>1</sup>	0	3

*Third Year*

<i>Chm. 101-102</i>	Theories of chemistry	1	0	2
<i>Chm. 103-104</i>	Organic chemistry	3	0	6
<i>Chm. 106</i>	Analytical chemistry (advanced volumetric, pharmacopœial testing, and urine analysis)	0	19 <sup>1</sup>	10
<i>M.M. 101-102</i>	Materia medica	3	0	6
<i>M.M. 103-104</i>	Toxicology	1	0	2
<i>M.M. 111-112</i>	Microscopic pharmacognosy	½	1½	2½
<i>Phr. 101-102</i>	Theoretical pharmacy	3	0	6
<i>Phr. 109-110</i>	Pharmaceutical jurisprudence and economics	2	0	4
<i>Phr. 111</i>	Manufacturing pharmacy	0	13 <sup>2</sup>	5
<i>Phr. 113</i>	Practical dispensing pharmacy	0	3 <sup>2</sup>	1
<i>Math. 101</i>	Algebra	3	0	3
<i>Math. 102</i>	Trigonometry	3	0	3

<sup>1</sup>During 16 weeks.<sup>2</sup>During 12 weeks.

## Fourth Year

<i>Chm.</i> 151-152	Inorganic quantitative analysis	I	29 <sup>1</sup>	10
<i>Chm.</i> 153-154	Food analysis and toxicology	I	29 <sup>1</sup>	10
<i>Chm.</i> 155-156	Biological chemistry	I	0	2
<i>M.M.</i> 152	Applied pharmacognosy	2	21 <sup>1</sup>	6½
<i>M.M.</i> 154	Botanical taxonomy	0	6 <sup>1</sup>	1½
<i>M.M.</i> 155-156	Human physiology	I	0	2
<i>Phr.</i> 151-152	Advanced pharmacy	I	0	2
<i>Phr.</i> 153-154	Pharmaceutical assaying	0	29 <sup>1</sup>	7
<i>Bibl.</i> 151-152	Pharmaceutical bibliography	I	0	2

<sup>1</sup>During 8 weeks.



# COURSES OF INSTRUCTION

## CHEMISTRY

**Chemistry 1-2—General physics** (for University freshmen and first year College students). Lectures and recitations 3 hours, 6 points. Professor A. TAUB and instructors.

The first semester of this course covers the subjects of mechanics, the kinetic molecular theory, the properties of matter, heat, wave motion, and sound.

The second semester embraces the subjects of magnetism, electricity, and light. Particular consideration is given to the electron theory, electrolysis, ionization of gases, spectroscopy, and polarization.

The lectures are abundantly illustrated with experiments, the College possessing a fine set of modern physical apparatus.

Textbook: Stewart, *College Physics*.

**Chemistry 3-4—General inorganic chemistry** (for University freshmen and first year College students). Lectures and recitations 3 hours, 6 points. Professors H. V. ARNY, A. TAUB, and instructors.

This course, the beginning of consecutive instruction in chemistry covering three years, is given to the first year students of both the College and the University Classes. It opens with a careful consideration of the fundamental principles of chemistry followed by a discussion of the non-metals and their compounds from their cultural, technical, and pharmaceutical viewpoints.

Textbooks: Deming, *General Chemistry*, third edition; U. S. *Pharmacopæia*.

**Chemistry 5—General chemical laboratory** (for first year College students). Laboratory 5 hours for 16 weeks. 2½ points. Professors H. H. SCHAEFER, L. JAYNE, and instructors.

This course is intended to familiarize the student with the fundamental laws of chemistry by actual experimentation. To do this properly the student is first given instruction in the use of apparatus, glass manipulation, etc. This is followed by preparation and isolation of a few representative types of elements and compounds. In all this work the underlying general principles are emphasized and placed on a mathematical basis whenever possible. Exercises in writing and calculating chemical equations and work on problems in chemical arithmetic are included.

Textbook: *Laboratory Notes*.

Reference book: Deming, *General Chemistry*.

**Chemistry 6—Analytical chemistry** (for first year College students). Laboratory 5 hours for 16 weeks. 2½ points. Professors H. H. SCHAEFER, L. JAYNE, and instructors.

The course in analytical chemistry consists of laboratory instruction and is attended by the class in sections. Each student is provided with the necessary equipment, and is required to perform all the operations involved in qualitative chemical analysis. The uses of apparatus, the actions of reagents, and the proper manner of bringing about chemical reactions are illustrated and explained. On account of the fundamental importance to the true understanding of the subject the simple laws governing chemical action in solution and the formation of precipitates, the nature of solution, etc., are explained to the student. At first, and under the guidance of the teacher, the characteristic reactions of the basic components are studied in solution, or in the solid at a high temperature. The phenomena observed are interpreted and discussed, and the conclusions recorded. Later, the reactions are represented by equations. The value of grouping is utilized and separations and identifications of group members are performed. Finally, all facts required by direct observation are brought together in the systematic procedure for analysis of mixtures. In this recapitulation, individual effort is stimulated by independent work on unknown samples.

Textbook: Schaefer and Bliss, *Qualitative Chemical Analysis*.

**Chemistry 7—General chemistry laboratory** (for University freshmen). Laboratory 4 hours for 16 weeks, beginning September 18, 1933. 2 points. Professor H. C. KASSNER and instructors.

The student will be made familiar with laboratory processes by means of a course of experiments in inorganic chemistry, involving the isolation of important elements and a study of their physical and chemical properties; typical compounds are prepared and purified and an examination of their reactions is carried out. Fundamental laws of chemistry are illustrated by experiments conducted by the students who thus obtain a clear understanding of the principles upon which the science of chemistry is based, as well as experience in the manipulation of chemical apparatus.

Textbook: Deming and Aronson, *Exercises in General Chemistry*.

Reference book: Deming, *General Chemistry*.

**Chemistry 8—Qualitative inorganic analysis (for University freshmen).** Laboratory 4 hours for 16 weeks, beginning January 22, 1934. 2 points. Professor H. C. KASSNER and instructors.

This course in qualitative analysis consists of a study of the basic ions; first the student learns their reactions and he is then taught to separate them systematically and to identify them. Finally he is required to analyze solutions containing two or more basic ions. Throughout the course the theoretical principles upon which the laboratory work is based are explained in detail.

Textbook: Scott, *Elements of Qualitative Chemical Analysis*.

**Chemistry 10—Practical physics (for University freshmen).** Laboratory 4 hours for  $\frac{1}{2}$  year. 2 points. Professor A. TAUB and instructors.

The course consists of sixteen half-day periods of four hours each, given during the second half of the year.

This work consists of experiments in fundamental physical measurements followed by special work in mechanics, heat, light, sound, and electricity. The laboratory is equipped not only with apparatus for routine exercises, but has the appliances necessary for work in colorimetry, spectroscopy, spectrophotometry, refraction, calorimetry, and electrochemistry.

**Chemistry 55-56—Inorganic chemistry (for University sophomores, and second year College students).** Lectures and recitations  $3\frac{1}{2}$  hours. 7 points. Professors H. V. ARNY, A. TAUB, and instructors.

This course, a continuation of *Chemistry 3-4*, will be devoted to a consideration of the metallic elements and their compounds. It will open with a discussion of ionization and throughout the course, all of the more important principles of theoretical inorganic chemistry, such as the modern theories concerning valence, chemical equilibrium, oxidation, reduction and atomic structure, will be discussed. In descriptive chemistry, the course will consider all of the more important metallic elements and their salts. These will be discussed from the standpoint of modern industrial chemistry.

Textbook: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition.

**Chemistry 57-58—Qualitative inorganic analysis (for University sophomores).** Laboratory 3 hours. 3 points. Professor H. C. KASSNER and instructors.

The course in qualitative analysis begun in the first year is continued in the second year. The sequence of work is as follows: (1) the study of the acidic-ions according to an analytical scheme of separation; (2) a systematic method of preliminary testing of unknown compounds; (3) the preparation for analysis of water-insoluble substances; and (4) the complete qualitative analysis of unknown solutions, mixtures or powders containing two or more compounds. The latter part of the course is devoted to an examination of inorganic chemicals carried out according to the pharmacopœial tests for identity and purity, and including limit tests for lead, arsenic, sulphates, etc.

Textbooks: Scott, *Elements of Qualitative Analysis*; U. S. *Pharmacopœia*.

**Chemistry 59-60—Analytical chemistry (for second year College students).** Laboratory  $3\frac{1}{2}$  hours.  $3\frac{1}{2}$  points. Professors H. H. SCHAEFER, L. JAYNE, and instructors.

The first half of the second year course is devoted to completing the instruction in qualitative analysis. The discussion of the simpler fundamental laws governing chemical and physical changes in solution, begun in the first year, are followed to conclusion. The preliminary testing and preparation of a sample for analysis, involving solution in solvents other than water, and the procedure

for analysis of substances insoluble in water and acids, are studied and practiced. The greater part of the time is devoted to the study of the acidic components.

The second half of the school year is devoted to the theory and practice of volumetric analysis. The proper preparation of volumetric solutions is given consideration and all types of U. S. P. volumetric assays are conducted. The theories of indicators are presented and considerable time is devoted to the calculations involving a knowledge of volumetric analysis.

Textbooks: Schaefer and Bliss, *Qualitative Chemical Analysis*; U. S. Pharmacopœia.

### Chemistry 101-102—Theories of chemistry (for University juniors). Lectures and recitations 1 hour. 2 points. Professor H. H. SCHAEFER.

The object of this course is to bring together, to correlate, and to elaborate somewhat the various theories presented to the student in the regular chemistry and physics lectures. Consideration is given to the kinetic theory, the gas laws, the laws governing change of state, the quantitative laws of chemical combination, the atomic hypothesis, the laws of valence, the periodic system, radioactivity, atomic disintegration, atomic structure, solubility, ionization, indicators, equilibrium, electrochemistry, and colloids.

Special importance is placed upon the practical application of modern theories of physical chemistry to analytical processes and methods.

Textbook: Chapin, *College Chemistry*.

### Chemistry 103-104—Organic chemistry (for University juniors and third year College students). Lectures and recitations 3 hours. 6 points. Professors H. V. ARNY, A. TAUB, and instructors.

This course, a continuation of *Chemistry 3-4* and *55-56*, will be devoted to a comprehensive study of the carbon compounds, special care being taken to keep the course abreast the new applications of organic chemistry in pharmacy and medicine. The preparation of the more common organic chemicals is given careful consideration and advances under modern methods of research are presented to the class as they are reported.

All the official and the more important unofficial organic pharmaceutical chemicals and medicinal products, notably the newer synthetic remedies, are taken up and classified according to their position in the various organic groups. By this method of classification the subject of organic pharmaceutical chemistry is presented in the same sequence as that of general organic chemistry.

Textbook: Sadtler-Coblentz-Hostmann, *Pharmaceutical Chemistry*, sixth edition; U. S. Pharmacopœia.

### Chemistry 106—Analytical chemistry and urine analysis (for University juniors). Laboratory 19 hours for 16 weeks, beginning January 22, 1934. 10 points. Professor H. C. KASSNER and instructors.

During the first part of the course, the student is supplied with pure and adulterated samples of official organic chemicals and is required to test them for identity and purity to determine whether they conform to the requirements of the Pharmacopœia, each sample studied representing a typical class of organic compound. This work also involves the determination of congealing, boiling and melting points, fractionations, alcoholmetric estimations and other determinations of like character.

A short course in the qualitative examination and identification of organic compounds, including the preparation of derivatives and the determination of physical constants is included.

The second section of the course is devoted to volumetric analysis, the solutions used being prepared and standardized by the student. The substances assayed include antiseptics, disinfectants, ointments, volatile oils, etc.

The third part of the year's work deals with the assaying of vegetable drugs, including determination of alkaloids in crude drugs and their pharmaceutical products, crude fiber, soluble extractive, etc.

The above course is concluded with certain miscellaneous assays. The final period is devoted to the analysis of urine.

Textbooks: U. S. Pharmacopœia; H. T. Clarke, *Handbook of Organic Analysis*; Jenkins and DuMez, *Quantitative Pharmaceutical Chemistry*.

### Chemistry 107-108—Newer remedies (for third year College students). Lecture and recitations 2 hours. 4 points. Professor H. H. SCHAEFER and instructors.

The aim of this course is to make the students familiar with the many preparations generally classified as "synthetics" which are prescribed by physicians but which are not official. Most of

these preparations are rather recent additions to our materia medica and many of them are covered by patents. The products are not selected because of their medicinal merit but rather because of the frequency with which they are prescribed. Not only will the chemistry of these preparations be considered, but whenever possible, original packages will be shown to the students and the names of their manufacturers given.

Textbook: *New and Non-official Remedies*.

**Chemistry 109—Analytical chemistry** (for third year College students).  
Laboratory 6 hours for  $\frac{1}{2}$  year. 3 points. Professors H. H. SCHAEFER, L. JAYNE, and instructors.

This course will be given in six-hour periods to one section during the first half year and to the other section during the second half. This will enable the student to perform operations which require more time than is available in the usual three-hour period. The course will be devoted entirely to pharmaceutical testing and assaying. Some of the more important operations to be carried out are: the preparation and standardization of volumetric solutions, testing the purity and strength of official chemicals and galenicals, selected gravimetric determinations, iodine values, saponification values, examination of oils, identification of alkaloids. The assay of crude drugs will be given special attention by dividing the section into still smaller groups for this work thus insuring better and more careful supervision. Practice will of course be given in the use of the analytical balance.

Textbooks: *United States Pharmacopœia and National Formulary*.

**Chemistry 110—Same as Chemistry 109** but given during the second half of year.

**Chemistry 151–152—Inorganic quantitative analysis** (for University seniors).  
Lectures 1 hour for 32 weeks; laboratory 29 hours for 8 weeks, beginning September 18, 1933. 10 points. Professor H. C. KASSNER and instructors.

The aim of this course is to train the student to carry out with precision many of the more difficult analyses of chemical and pharmaceutical products.

The laboratory work of the course consists, in the main, of a series of selected gravimetric determinations covering a wide field of substances, chosen to illustrate typical methods of procedure. This work is supplemented by hydrogen ion and electrolytic determinations, etc.

In the lecture course, methods of quantitative analysis, gravimetric, volumetric, colorimetric, etc., are discussed at length and compared.

Reference books: Scott, *Standard Methods of Chemical Analysis*; Hillebrand and Lundell, *Applied Inorganic Analysis*.

**Chemistry 153–154—Food analysis and toxicology** (for University seniors).  
Lectures 1 hour for 32 weeks; laboratory 29 hours for 8 weeks, beginning November 13, 1933. 10 points. Professors H. V. ARNY, H. C. KASSNER, and instructor.

In order to give every advantage to the instruction in this department during the fourth year, the College has provided very complete apparatus, which supplies the very best facilities that modern science affords.

The work in this department will cover the following courses:

1. Analysis of various foodstuffs, including milk, butter, flavoring extracts, etc.
2. Chemical and sanitary examination of water.
3. Isolation and detection of organic and inorganic poisons.

In addition to the laboratory work just outlined there will be a lecture course describing the various chemical and physical methods of food examination.

Textbooks: Leach, *Food Analysis*; Mason, *Examination of Water*.

Reference books: Allen, *Commercial Analysis*; Autenrieth-Warren, *Detection of Poisons*.

**Chemistry 155–156—Biological chemistry** (for University seniors). Lectures 1 hour. 2 points. Professor A. TAUB.

The instruction in inorganic and organic analysis relates to the examination of substances disconnected from the living body, but the competent analyst must be prepared to consider and act upon a knowledge of the natural changes which substances undergo when absorbed into the living body, as well as the natural products there originating.

## MATERIA MEDICA

**Materia Medica 1-2—Botany and pharmacognosy** (for first year College students and University sophomores). Lectures and recitations 3 hours. 6 points. Professors C. W. BALLARD, F. HART, and instructors.

The object of this course is to prepare the student for an understanding of that part of materia medica which relates to vegetable drugs. In the limited time allotted to this study, it is impossible to pursue it in all its departments, and attention is concentrated upon such instruction as will fit the student for professional work in pharmacy. The instruction includes a brief consideration of plant life in general and the evolution of the higher plants from those of a simpler nature. The major portion of the time available is devoted to the morphology of the higher plants from which nearly all of our vegetable drugs are derived, the terms used in official descriptions, systems of classification, and botanical nomenclature.

Textbook: Rusby, *Manual of Botany*.

**Materia Medica 3-4—Botany laboratory** (for first year College students). Laboratory 3 hours. 3 points. Professors C. W. BALLARD, F. HART, H. TAUB, and instructors.

This course affords opportunity for personal observations supplemental to the theoretical training of the botany lectures (*Materia Medica 1-2*) and is a foundation for laboratory courses in pharmacognosy. The course is divided into three parts as follows:

General: A brief résumé of the developmental sequence of plant life from the single-celled forms to the seed-bearing plants.

Morphology: A detailed study of the various organs of the seed-bearing plants and involving dissection of these parts both with and without the aid of the simple microscope.

Histology: As ability to use a microscope properly is the foundation of success in all branches of microscopy, first attention is given to a consideration of the parts and methods of using the instrument.

The course under the direction of Professor BALLARD includes the study of plant tissues and the various types of cell contents. A physiological grouping of the tissues is followed by detailed study of the forms, modifications, locations, functions and differences in chemical constitution of the cellular elements concerned in protection, support, absorption, transportation, synthesis, and storage. The organic and inorganic cell contents are classified; details of their synthesis are considered and the more commonly used microchemical tests are demonstrated. This work is followed by a detailed study of the arrangement of cells and disposition of cell contents in the various parts and organs of the plant.

Textbooks: Ballard, *Elements of Vegetable Histology*, second edition; Ballard and Hart, *Laboratory Manual*.

**[Materia Medica 5-6—Posology.**

*Not given in 1933-1934.]*

**Materia Medica 51-52—Plant morphology and histology** (for University sophomores). Laboratory 4½ hours. 4½ points. Professors C. W. BALLARD, F. HART, H. TAUB, and instructors.

This course corresponds substantially to certain courses in Columbia College (*Botany 1-2, 3-4, 5105*) and in addition includes the more specialized treatment of morphology and histology requisite for the study of pharmacognosy.

Morphology: The laboratory course in morphology is designed to supplement the lectures in pharmaceutical botany (*Materia Medica 1-2*). It affords practical training in simple plant dissection, both with and without the dissecting microscope, thereby illustrating the topics considered in the above lecture course and fitting students for the advanced studies of pharmacognosy and taxonomy.

Histology: This section of the course includes a systematic review of one or more representative orders of the Thallophyta, Bryophyta, Pteridophyta, and Spermatophyta. The chief object is the tracing of the origin and development of the various tissues and organs occurring in the higher plants. This is followed by a detailed study of the various cellular elements, considered both as individual tissues and as integral parts of plant organs.

Textbooks: Ballard, *Elements of Vegetable Histology*, second edition; Ballard and Hart, *Laboratory Manual*; Rusby, *Manual of Botany*; Curtis, *Nature and Development of Plants*.

**Materia Medica 53-54—Pharmacognosy, macroscopic and microscopic** (for second year College students). Laboratory 3 hours. 3 points. Professor H. TAUB and instructors.

Macroscopic: This part of the course comprises laboratory instruction in the classification, identification and description of the vegetable drugs of the U. S. Pharmacopœia and National Formulary. The drugs and medicinal products of vegetable origin are grouped according to the parts of the plant from which they are derived and further classified on the basis of medicinal constituents. Each drug receives separate attention in the laboratory and the following details are considered—titles under which the drug is known; botanical, geographical and commercial sources; official description, definition and prevailing standards; liability to adulteration or substitution; preparation for market and proper means of preservation or storage.

Each student receives a typical specimen of the drug under consideration and must retain the same for future reference. At the completion of the course each student possesses a collection of the official crude drugs as his personal property. Proficiency in the identification of the drugs studied is determined by practical examinations at short intervals during the term. A knowledge of botany (*Materia Medica 1-2, 3-4* or equivalent) is prerequisite to a proper understanding of the work in this course.

Textbooks: Ballard, *Laboratory Manual*; Mansfield, *Materia Medica and Pharmacognosy*.

Microscopic: The preliminary work of this part of the course will consist of a brief review of the cellular elements and cell contents in the parts of plants used as drugs or foods. In this manner the work in vegetable histology of the first year (course *Materia Medica 3-4*) is coördinated to the more detailed study of microscopical pharmacognosy. Powders prepared from drugs representing different parts of the plant will be used as material for study. By utilization of the sections prepared in the first year it will be possible, in many instances, for the student to compare the section with the powder and thus observe the disposition of the cellular elements *in situ* and the changes in appearance incidental to powdering. The number of specimens studied is necessarily limited by the amount of time which can be given to the work but the subject matter of the course is so arranged that representative rather than extraordinary types are considered. The student is expected to construct and use analytical keys in the identification of the powdered materials examined. Progress in course is determined by a series of practical examinations at short intervals throughout the year and the student must record his observations by drawings made from his specimens.

Textbooks: Ballard, *Elements of Vegetable Histology*, second edition; Ballard, *Laboratory Manual*.

**[Materia Medica 55-56—Macroscopic pharmacognosy.**

*Not given in 1933-1934.]*

**Materia Medica 57-58—Human physiology and hygiene** (for second year College students). Lectures and recitations 2 hours. 4 points. Professor H. H. RUSBY and instructors.

In addition to the skill in pharmacognosy required for the selection of drugs, the educated pharmacist is required to possess some general information concerning the properties and uses of the materials which he is engaged in handling and dispensing; that is, of the general classification of medicines. As such classification depends directly upon their physiological properties, a limited and specialized course of instruction in human physiology is provided.

The method consists in so arranging the order of subjects that the student shall be led from the very first lesson to see the manner in which disordered bodily functions may be restored to a healthy condition by the action of medicines, and leads to the immediate classification of the more important remedies in connection with the study of the organs or systems to the functions of which they apply. While this method gives an accurate knowledge of the facts involved, it permits of the exclusion of a large portion of the subject of physiology, and reduces to a minimum the amount of time expended in acquiring such a knowledge of this department of materia medica as is properly required of the practicing pharmacist.

Textbook: Bachman and Bliss, *Essentials of Physiology*.

**Materia Medica 59-60—Microbiology** (for second year College students).

Lectures and recitations 1 hour, laboratory and demonstrations 1 hour. 3 points. Professor F. HART and instructors.

This subject constitutes an introduction to the nature, behavior and effects of microorganisms, especially of bacteria. Without entering upon the subject of practical laboratory bacteriology, as is done in the University Course, it discusses the life history of bacteria, and the part that they

play in fermentation and decomposition, as well as in disease, and indicates the general nature of the means employed in combating them, and treats of biological products. The subject of sterilization, as employed in the pharmacy, and the principles of antiseptics and immunization are studied.

**[Materia Medica 61-62—Bacteriology.**

*Not given in 1933-1934.]*

**Materia Medica 101-102—Materia medica** (for University juniors and third year College students). Lectures and recitations 3 hours. 6 points. Professor C. W. BALLARD and instructors.

The subject matter of this course includes the drugs of the U. S. Pharmacopœia and National Formulary together with nonofficial drugs in common use by physicians or the laity. The various types of remedies are considered in accordance with their therapeutic uses. Discussion of the individual drugs covers the official titles, abbreviations, definitions and standards, origin, preparation, preservation, variations in quality and causes of such variation, constituents, properties and uses, preparations and doses. All instruction in description, structure and identification, and the detection of adulterants and impurities is referred to the extensive course in pharmacognosy.

Textbook: Rusby, Bliss, and Ballard, *Properties and Uses of Drugs*.

**Materia Medica 103-104—Toxicology** (for University juniors and third year College students). Lectures and recitations 1 hour. 2 points. Professor C. W. BALLARD and instructors.

The classification of poisons is based upon the physiological action of medicines, taught in the preceding year, and is synoptically presented. The toxicology of the individual drugs is then taken up in detail in connection with their physiological action and medicinal uses. Experience has shown that by this method the modes of occurrence of poisoning accidents, the poisonous doses, the action of poisons and their rational treatment, are all made more intelligible to the student, and are better impressed upon his memory, than by treating the subject as entirely disconnected from that of materia medica.

Textbook: Rusby, Bliss, and Ballard, *Properties and Uses of Drugs*.

**Materia Medica 109-110—Medical appliances and first aid** (for third year College students). Lectures 1 hour. 2 points. Professor C. W. BALLARD.

This course includes a systematic presentation of the facts of interest to the retail pharmacist in the use and sale of the ordinary sick-room sundries. The course is thus linked with materia medica on the one hand and commercial pharmacy on the other. Among the topics considered are: bandaging and dressing materials, rubber sundries, glass and metal appliances and ligatures. A brief series of lectures is included in connection with first-aid treatment. This instruction is to enable the pharmacist to cooperate intelligently with the physician in dealing with the common emergencies in which first recourse is often to the nearest pharmacy.

**Materia Medica 111-112—Microscopic pharmacognosy** (for University juniors). Lectures  $\frac{1}{2}$  hour, laboratory  $1\frac{1}{2}$  hours.  $2\frac{1}{2}$  points. Professor H. TAUB and instructors.

This course consists of a detailed study of the histological structure of the several plant organs, followed by a consideration of the characters and adulterants of the commonly used powdered drugs. It includes the preparation of specimens both in sectioned and powdered forms and the application of stains and microchemical tests to the materials so prepared.

Textbook: Ballard, *Laboratory Manual*.

**Materia Medica 152—Applied pharmacognosy** (for University seniors). Lectures 2 hours, laboratory 21 hours for 8 weeks beginning March 19, 1934.  $6\frac{1}{2}$  points. Professors C. W. BALLARD, H. TAUB, and instructor.

The object of this course is instruction in the methods of applying the principles of microscopy to practical problems apt to be encountered in the average commercial laboratory. The introductory work will consist of a consideration of the general methods employed in microanalysis and the uses of the more common accessories, including polarizing apparatus, measuring apparatus, counting chambers, dark field and vertical illumination. Each student is required to prepare sections of the various types of vegetable materials, using these sections for the demonstration of

staining procedures and microchemical reactions. This will be followed by practical and individual work in the qualitative determination of typical drugs and mixtures to which microanalytical methods are applicable. During this work, it is expected that the student will avail himself of the library facilities of the College and freely use the economic drug and food collections of the laboratory conditions and to train the worker to depend upon himself. The materials used for teaching purposes will, so far as possible, be commercial products which have been analyzed by microscopical methods.

References: Youngken, *Pharmacognosy*.

**Materia Medica 154—Botanical taxonomy** (for University seniors). Laboratory 6 hours for 8 weeks beginning March 19, 1934. 1½ points. Professor H. H. RUSBY.

A good working knowledge of the terms used in descriptive botany, such as can be gained by a study of Rusby, *Manual of Botany*, will be found a sufficient preparation for this course.

The object of this course is to present a general idea of the system of flowering plants, and of their classification and determination by the use of descriptive works. The work consists of the laboratory study of types of the principal families, especially those rich in medicinal and poisonous species.

Textbook: Rusby, *Manual of Botany*.

Reference books: Bentham and Hooker, *Genera Plantarum*; Engler and Prantl, *Pflanzenfamilien*.

**Materia Medica 155-156—Human physiology** (for University seniors). Textbooks and conferences 1 hour. 2 points. Professor C. W. BALLARD.

This course consists of a series of discussions, based on assigned reading, occupying one hour weekly throughout the term.

Textbook: Howell, *Physiology*.

## PHARMACY

**Pharmacy 1-2—Operative pharmacy; theory** (for first year College and University students). Lecture 1 hour, recitation 1 hour. 4 points. Professor H. M. CARTER and instructors.

The purpose of this course is to familiarize the student with the fundamentals of pharmaceutical science. It comprises the study of elementary operations, such as heating, evaporation, sublimation, distillation, solution, crystallization, precipitation, filtration, etc. The second semester is devoted to the general discussion of the classification of the preparations of the U. S. Pharmacopœia and National Formulary. This will include definitions, descriptions, uses and methods of preservation of the various types of official galenicals.

Textbooks: U. S. *Pharmacopœia*; Arny, *Principles of Pharmacy*.

**Pharmacy 3-4—Operative pharmacy; laboratory** (for first year College and University students). Laboratory 3 hours. 3 points. Professors L. N. BROWN, H. M. CARTER, J. S. DORFMAN, and instructors.

The laboratory work correlates, as far as is practical, the lecture material. The important pharmaceutical processes, the methods for the determination of specific gravity, the solubility of salts, and the alcoholic content of pharmaceutical preparations are given careful consideration.

In addition the student prepares the types of simple galenical preparations of the U. S. Pharmacopœia and National Formulary.

Textbooks: U. S. *Pharmacopœia*; *National Formulary*; Wimmer, *Operative Pharmacy Notes*.

**Pharmacy 5—Pharmaceutical arithmetic. Course A** (for first year College and University students). Lecture 1 hour, recitation 1 hour. One semester, 2 points. Professor L. N. BROWN and instructors.

This course comprises the first half of the required instruction in pharmaceutical arithmetic, the second half being given in the second year. The more elementary portions of the work are taken up, such as systems of weights and measures, specific gravity calculations, thermometric scales, and conversions of the various systems into each other, etc.

Textbook: Sturmer, *Pharmaceutical Arithmetic*.



**Pharmacy 6—Pharmaceutical ethics and history** (for first year College and University students). Lecture 1 hour, recitation 1 hour. One semester, 2 points. Professor C. P. WIMMER and instructors.

The purpose of this course is to introduce pharmacy as a profession to the student. It consists of a series of lectures on the historical development of pharmacy, beginning with the Egyptian era and tracing it through the Greek, Roman, Arabic, and European periods up to the present time. Special stress is laid upon the development of pharmacy in the United States; its position in the economic life of the nation; its organization; the aims, purposes, and accomplishments of the various pharmaceutical associations; the pharmaceutical code of ethics, etc.

**Pharmacy 51—Theory of pharmacy** (for second year College students). Lecture 1 hour, recitation 1 hour. One semester, 2 points. Professor C. P. WIMMER and instructors.

This course comprises a detailed study of the various types of active constituents of drugs, their methods of extraction, solubilities, and general characteristics. Official and unofficial methods of drug extraction are discussed and the study of the official fluid extracts, extracts, tinctures is covered.

Textbooks: *U. S. Pharmacopœia; National Formulary.*

**Pharmacy 52—Pharmaceutical arithmetic. Course B** (for second year College students). Lecture 1 hour, recitation 1 hour. One semester, 2 points. Professor L. N. BROWN and instructors.

This course is devoted to the more advanced aspects of pharmaceutical arithmetic. It comprises the study of proportions, percentage, alligation, reducing and enlarging formulæ, etc., as used in manufacturing and dispensing pharmacy.

Textbook: Sturmer, *Pharmaceutical Arithmetic.*

**Pharmacy 53-54—Pharmaceutical Latin** (for second year College students). Lecture 1 hour, recitation 1/2 hour. 3 points. Professor J. S. DORFMAN and instructors.

This course is devoted to the study of pharmaceutical Latin. The work is divided as follows: (1) study of the principles of etymology and syntax; (2) systematic study of Latin vocabulary including official Latin titles, botanical nomenclature and abbreviations with special reference to the formation of words and their relative importance to pharmacy; and (3) practice in prescription writing, necessary to an intelligent understanding of Latin used in prescriptions.

Textbooks: Dorfman, *Pharmaceutical Latin; U. S. Pharmacopœia; National Formulary.*

**Pharmacy 55-56—Dispensing pharmacy laboratory** (for second year College students). Recitation 1 hour, laboratory 2 1/2 hours. 4 1/2 points. Professors L. N. BROWN, J. S. DORFMAN, and instructors.

The first semester embraces general methods of compounding pills, troches, bacilli, emulsions, ointments and suppositories. It includes theoretical instruction and training in practical work emphasizing the habits of accuracy and neatness.

The second semester deals more especially with prescriptions and includes the compounding and dispensing of the various types requiring technical knowledge and skill. Consideration is given to tablet triturates, mucilages, mixtures, and filling of capsules, cachets, collapsible tubes, etc. General instruction is given in the reading and interpretation of prescriptions, the recognition of the various constituents of their ingredients together with the proper methods and manner of dispensing them.

Textbooks: Diekman and Wimmer, *Dispensing Pharmacy Laboratory Notes; Scoville, The Art of Compounding; U. S. Pharmacopœia and National Formulary.*

**Pharmacy 57-58—Dispensing pharmacy laboratory** (for University sophomores). Laboratory 3 hours. 3 points. Professor H. M. CARTER and instructors.

This course provides laboratory practice and instruction in the compounding and dispensing of eye washes, gargles, sprays, lotions, liniments, emulsions, bulk powders, folded powders, capsules, pills, ointments, and suppositories. The dispensing work is assigned solely by means of written prescriptions.

[Pharmacy 59—Manufacturing pharmacy laboratory.  
Not given in 1933-1934.]

**Pharmacy 61-62—Pharmaceutical economics** (for second year College students). Lecture 1 hour, laboratory 2 hours. 4 points. Professor F. D. LASCOFF.

This course in pharmaceutical economics is designed to give the student a practical knowledge of the basic principles that underlie the successful management of a business. Owing to a lack of knowledge of these principles, many pharmacists have failed to achieve the degree of success to which their professional knowledge and training entitle them.

The course consists of all the activities incidental to the opening and operation of a retail drug store, including the choice of location, the elements of business administration and store management, insurance, problems of retail merchandising, including the value of discounts, banking, principles of advertising and salesmanship, business correspondence as well as the elements of systematic bookkeeping.

The accounting records are the basic source of data for business management. Accordingly, the course in commercial pharmacy will partially be devoted to the principles underlying the making and interpretation of these records.

**Pharmacy 101-102—Theoretical pharmacy** (for University juniors and third year College students). Lectures 2 hours, recitation 1 hour. 6 points. Professor C. P. WIMMER and instructors.

During the first semester, the study of the U. S. Pharmacopœia and National Formulary galenic preparations is continued and completed. Their methods of preparation are individually studied and the reasons for each step taken in their preparation are given. The second semester is devoted to the study of non-official important galenic, cosmetic and toilet preparations, as well as to the study of the pharmacy of individual substances used in prescriptions.

Textbooks: *U. S. Pharmacopœia; National Formulary V; American Pharmaceutical Association Recipe Book.*

**Pharmacy 103-104—Theoretical dispensing pharmacy** (for third year College students). Lectures 1 hour, recitation 1 hour. 4 points. Professor C. P. WIMMER and instructors.

This course is devoted in the main to the study of the problems encountered by the pharmacist in his prescription work. Prescriptions of all kinds, especially such as present some difficulties, are studied with the aid of lantern slides. The numerous incompatibilities of present-day prescription work are discussed, as well as ways of avoiding or overcoming them. The subject of homeopathy receives the attention it deserves.

Textbooks: Scoville, *The Art of Compounding*; Ruddiman, *Incompatibilities.*

**Pharmacy 105—Manufacturing pharmacy laboratory** (for third year College students). Laboratory 6 hours for 16 weeks beginning September 18, 1933. 3 points. Professors L. N. BROWN, J. S. DORFMAN, and instructors.

The work of this course is a continuation of the first year. Many inorganic and organic pharmaceutical preparations and salts are manufactured. In addition, galenicals, toilet preparations, and hospital formulæ are compounded. Especial attention is given systematic training in the identification of many chemicals and galenicals official in the United States Pharmacopœia and National Formulary.

Textbooks: *U. S. Pharmacopœia; National Formulary; National Dispensatory; The Pharmaceutical Recipe Book*; Diekman and Wimmer, *Pharmacy Notes.*

**Pharmacy 106—Same as Pharmacy 105** but given during second half of the year, beginning January 15, 1934.

**Pharmacy 107-108—Dispensing pharmacy laboratory** (for third year College students). Laboratory 4 hours. 4 points. Professors L. N. BROWN, J. S. DORFMAN, and instructors.

The work in the dispensing pharmacy laboratory deals particularly with the various phases of prescription dispensing, such as checking, labeling, pricing, and delivery, etc. The all-important subject of chemical, pharmaceutical, and therapeutical incompatibilities is thoroughly studied. The continual introduction of new remedies renders the subject of prescription incompatibilities a never-ending study, and it is the aim of this course to qualify its graduates to keep pace with discovery.

Textbooks: Ruddiman, *Incompatibles in Prescriptions*; Diekman and Wimmer, *Pharmacy Notes*.

**Pharmacy 109-110—Pharmaceutical jurisprudence and economics** (for University juniors and third year College students). Lectures 2 hours. 4 points. Professors C. P. WIMMER, F. D. LASCOFF, and visiting lecturers and instructors.

This course is designed to familiarize the student with the fundamentals underlying all law and also with the general provisions of Federal and state laws governing the practice of pharmacy. The various ordinances and regulations having local application will also be studied. Special attention is given to prohibition and anti-narcotic laws and regulations.

Lectures by practical business men will be a feature of the course. This series of lectures will give the student the principles of merchandising from a business man's viewpoint rather than from that of the pedagogue. These lectures, as well as those of the regular course, are aimed to give the student a better understanding of contemporary business problems.

**Pharmacy 111—Practical pharmacy—manufacturing pharmacy laboratory** (for University juniors). Laboratory 13 hours for 12 weeks beginning September 18, 1933. 5 points. Professor H. M. CARTER and instructors.

This course includes the manufacture of a number of the more difficult Pharmacopœial and National Formulary preparations, as well as of inorganic and organic medicinal remedies. The work is intended to qualify students for positions in pharmaceutical manufacturing establishments.

Textbook: Wimmer, *Manufacturing Pharmacy Notes*.

**Pharmacy 113—Practical dispensing pharmacy** (for University juniors). Laboratory 3 hours for 12 weeks beginning September 18, 1933. 1 point. Professor H. M. CARTER and instructors.

This course embraces a thorough study of the various types of incompatibilities. A large number of prescriptions are compounded which illustrate how some incompatibilities may be avoided or overcome.

Textbooks: Diekman and Wimmer, *Incompatibilities*; Ruddiman, *Incompatibilities in Prescriptions*.

**Pharmacy 151-152—Advanced pharmacy** (for University seniors). Lecture 1 hour. 2 points. Professor C. P. WIMMER.

This course is devoted to a detailed study of pharmaceutical, chemical, and biological assay methods of vegetable and animal drugs, as well as of methods for their identification. It includes the newer methods employed, such as the standardization of tannin-containing drugs by the agglutination test, of saponin-containing drugs by the determination of their haemolytic indices, etc.

A portion of the lecture course is devoted to a study of essential oils, while especial emphasis is laid upon official oils. Those of importance in the essential oil industry are included.

In a series of seminars, students are required to prepare and present before the professors and instructors in the department, papers on current topics of interest pertaining to pharmaceutical and allied sciences.

Textbooks: Fuller, *Analysis of Drugs and Medicines*; U. S. *Pharmacopœia*; National Formulary V; Gildemeister and Hoffman, *The Volatile Oils*.

**Pharmacy 153-154—Pharmaceutical assaying** (for University seniors). Laboratory 29 hours for 8 weeks beginning January 22, 1934. 7 points. Professors C. P. WIMMER, H. M. CARTER, and instructors.

This course is intended to prepare the student for work as a drug analyst. The entire class carries out a proximate analysis of a vegetable drug. Individual problems in assay work of the most varied and difficult kind are assigned and the student is, to a considerable extent, left to his

own resources. The work embraces assays of galenicals, flavoring extracts, toiler preparations, cosmetics, medicinal gauzes, etc.

Textbooks: Fuller, *Analysis of Drugs and Medicines*; Nelson, *Introduction to the Analysis of Drugs and Medicines*; *Current Literature*.

## CULTURAL COURSES

**English 1-2—English** (for University freshmen). Lectures and recitations 4 hours. 8 points. Mr. G. D. McJIMSEY.

This course aims to give collegiate instruction in the fundamentals of structure and style in both practical and imaginative writing.

**History 1-2—American history** (for University freshmen). Lectures and recitations 3 hours. 6 points. Mr. D. R. BEDFORD.

After a brief survey of the planting of the English colonies in America, attention is centered on the revolt from British control, the political organization of the new nation, the rise of sectional controversy, and the war for Southern independence. Special emphasis is placed on the economic and social tendencies of the period since 1870.

Texts: Muzzey, *The United States of America*, Vol. I; Fox, *Atlas of American History*.

**German 51-52—German** (for University sophomores). Lectures and recitations 4 hours. 8 points. Mr. A. H. INGENHUETT.

This course in elementary German is designed to familiarize students with the essentials of grammar. Reading will constitute a large part of the work of the course, so as to enable students to read at sight easy German prose. Exercises in elementary composition and colloquial practice are introduced from the beginning.

**English 51-52—Survey of English literature** (for University sophomores). Lectures and recitations 2 hours. 4 points. Mr. G. D. McJIMSEY.

The aim of this course is to offer a survey of English literature. This is accomplished, not by a study of literary history, but by an intensive examination of important specimens of literary art. Representative masterpieces in poetry, prose, fiction and drama from each period of English literature will be carefully read and freely discussed.

**Zoölogy 51-52—Zoölogy** (for University sophomores). Lecture 1 hour, laboratory 2 hours. 4 points. Dr. A. W. POLLISTER.

A brief survey of the general principles of zoölogy and of the taxonomy, structure, physiology, and development of some of the chief groups of animals. The behavior and structure of representative types are studied in the laboratory by means of microscopic and macroscopic observations, dissections, and demonstrations. Special emphasis is placed upon vertebrates as types closely resembling man.

**Mathematics 51—Algebra** (for University sophomores). 3 hours. 3 points. Winter Session. Mr. D. SOLE.

**Mathematics 52—Trigonometry** (for University sophomores). 3 hours. 3 points Spring Session. Mr. D. SOLE.

Similar to *Mathematics 101-102* described below.

**Mathematics 101—Algebra** (for University juniors). 3 hours. 3 points Winter Session. Mr. G. D. McJIMSEY.

This course begins with a review of selected topics from elementary algebra and then treats of permutations and combinations, determinants with applications to the solution of linear equations, complex numbers, theory of equations, with reference to the solution of numerical equations of higher degree and partial fractions.

**Mathematics 102—Trigonometry** (for University juniors). 3 hours. 3 points Spring Session. Mr. G. D. McJIMSEY.

The subject matter of this course includes the trigonometric functions, relations between the functions, functions of several angles, inverse functions, trigonometric equations, logarithms, and the solution of triangles.

**Bibliography 151-152—Pharmaceutical bibliography** (for University seniors). Lectures and conferences 1 hour. 2 points. Professor C. W. BALLARD.

This course will consist of lectures on the source books of chemistry, pharmacy, botany, and cognate sciences and on the periodical literature on the same subjects. At the conferences, special themes will be assigned to each student for research during spare hours.

## THE GRADUATE COURSE

A graduate course of two full years' study in residence leading to the degree of Doctor of Pharmacy (Phar.D.) is open to graduates with the baccalaureate degree, conferred by this college or other schools of pharmacy maintaining equivalent courses of study. For the present, we are able to accommodate only two students majoring in each of the Departments of Chemistry, Materia Medica, and Pharmacy. Thirty hours' study weekly is required in the department in which the student is majoring, and three hours weekly in each of the other two departments.

An itemized synopsis follows:

### MAJOR SUBJECT

#### FIFTH YEAR

Option of Chemistry 201-202, or Materia Medica 201-202, or Pharmacy 201-202, 30 hours. 30 points. Conducted by the head of the Department or by the member of the Department staff designated by the head.

This major subject consists essentially of the research assigned to the student by the head of the Department, with weekly conferences during the progress of the work.

#### SIXTH YEAR

Option of Chemistry 251-252, or Materia Medica 251-252, or Pharmacy 251-252, 30 hours. 30 points. Conducted by the head of the Department or by the member of the Department staff designated by the head.

A continuation of the research work of the fifth year.

### MINOR SUBJECTS

In addition to the work of major interest selected by the candidate and constituting the research course, he or she will be required to elect as "minors" one course in each of the other two departments each year, representing 3 hours weekly in each of the other departments. While each of the minor courses is an entity, the arrangement is such that a student may continue his study in the elected "minor" during his second year of residence. It is to be noted that in certain instances these continuation courses are contingent upon the election of the preceding course. These optional courses are also open to any properly qualified persons desiring to pursue them as special students.

#### OPTIONS

#### *Chemistry*

**Chemistry 203-204—Structural organic chemistry.** Lectures and conferences 2 hours. 4 points. Professor H. V. ARNY.

**Chemistry 205-206—Synthesis of organic medicinal chemicals.** Lectures and conference 1 hour. 2 points. Professor H. H. SCHAEFER.

**Chemistry 207—Experimental organic chemistry.** Conference 2 hours, laboratory 10 hours for 8 weeks. 3½ points. Professors H. V. ARNY and A. TAUB.

This course includes combustions and other organic analysis, molecular weight determinations and other such work as time permits.

**Chemistry 208—Experimental organic chemistry.** Conference 2 hours, laboratory 10 hours for 8 weeks. 3½ points. Professor H. C. KASSNER.

This course includes the determination of radicles and of elements by methods other than combustions.

**Chemistry 209—Qualitative organic analysis.** Conference 2 hours, laboratory 10 hours for 8 weeks. 3½ points. Professor H. C. KASSNER.

In this course, the more complex organic compounds will be identified by modern methods of analysis.

**Chemistry 210—Analysis of pharmaceutical and technical products.** Conference 2 hours, laboratory 10 hours for 8 weeks. 3½ points. Professors H. C. KASSNER and A. TAUB.

Instruction will be given in routine commercial methods of analysis and in the investigation of products which often confront the consulting chemist.

**Chemistry 211—Practical physical chemistry.** Conference 2 hours, laboratory 10 hours for 8 weeks. 3½ points. Professor A. TAUB.

Instruction will be given in physico-chemical methods and in the standardization and use of physico-chemical apparatus.

### *Materia Medica*

**Materia Medica 203—Analysis and determination of cryptogamous and phanerogamous plants.** Conference 2 hours, laboratory 10 hours for 8 weeks. 3½ points. Professors H. H. RUSBY and F. HART.

**Materia Medica 205—Advanced bacteriology.** Conference 2 hours, laboratory 10 hours for 8 weeks. 3½ points. Professor F. HART.

The determination of types through special cultural and staining methods.

**Materia Medica 206—Advanced bacteriology.** Conference 2 hours, laboratory 10 hours for 8 weeks. 3½ points. Professor F. HART.

This course is supplemental to course *Materia Medica 205* and may only be elected by students in the sixth year who have pursued that course.

**Materia Medica 207—Food microscopy.** Conference 2 hours, laboratory 10 hours for 8 weeks. 3½ points. Professor C. W. BALLARD.

A systematic study of the various types of foodstuffs in which adulteration can be determined by microscopical methods.

**Materia Medica 208—Food microscopy.** Conference 2 hours, laboratory 10 hours for 8 weeks. 3½ points. Professor C. W. BALLARD.

This course is supplemental to course *Materia Medica 207* and may only be elected by students in the sixth year who have pursued that course.

**Materia Medica 210**—The literature and methods of research in vegetable taxonomy. Conference 2 hours, laboratory 10 hours for 8 weeks. 3½ points. Professor H. H. RUSBY.

This course can only be carried by those students in the sixth year who have elected course *Materia Medica 203* in the fifth year.

**Materia Medica 211**—Chemical microscopy. Conference 2 hours, laboratory 10 hours for 8 weeks. 3½ points. Professor H. TAUB.

A study of the microchemical procedures involved in the use of the microscope as an aid in chemical analysis.

**Materia Medica 212**—Chemical microscopy. Conference 2 hours, laboratory 10 hours for 8 weeks. 3½ points. Professor H. TAUB.

This course is supplemental to course *Materia Medica 211* and may only be elected by students in the sixth year who have pursued that course.

**Materia Medica 213**—Blood analysis. Conference 2 hours, laboratory 10 hours for 8 weeks. 3½ points. Professor H. TAUB.

This course includes the microscopical and chemical procedures involved in the examination of normal and abnormal blood.

**Materia Medica 215**—Technical microscopy. Conference 2 hours, laboratory 10 hours for 8 weeks. 3½ points. Professors C. W. BALLARD and H. TAUB.

The application of microscopical methods to the examination of textiles, furs, papers and other commercial products.

**Materia Medica 217**—Parasitology. Conference 2 hours, laboratory 10 hours for 8 weeks. 3½ points. Professor F. HART.

A study of the nature, identification and pathological effects induced by parasites infesting the animal body.

**Materia Medica 219**—Mycology. Conference 2 hours, laboratory 10 hours for 8 weeks. 3½ points. Professors C. W. BALLARD and F. HART.

The nature, identification, and changes caused by molds and allied forms in drug, food, and commercial preparations.

### *Pharmacy*

**Pharmacy 203**—Manufacture and standardization of drug products. Conference 2 hours, laboratory 10 hours for 8 weeks. 3½ points. Professor H. M. CARTER.

**Pharmacy 204**—Assay and analysis of official and non-official galenicals and other medicinal preparations. Conference 2 hours, laboratory 10 hours for 8 weeks. 3½ points. Professor H. M. CARTER.

**Pharmacy 205**—Examination and analysis of incompatible mixtures with special reference to prescriptions. Conference 2 hours, laboratory 10 hours for 8 weeks. 3½ points. Professor C. P. WIMMER.

**Pharmacy 206**—Essential oils, their production and composition. Lectures 2 hours, laboratory 10 hours for 8 weeks. 3½ points. Professor C. P. WIMMER.

Pharmacy 207—Assay and analysis of essential oils. Conference 2 hours, laboratory 10 hours for 8 weeks.  $3\frac{1}{2}$  points. Professor C. P. WIMMER.

Pharmacy 208—Manufacture of synthetic perfume materials. Conference 2 hours, laboratory 10 hours for 8 weeks.  $3\frac{1}{2}$  points. Professor C. P. WIMMER.

Pharmacy 209—Examination and analysis of perfumes. Conference 2 hours, laboratory 10 hours for 8 weeks.  $3\frac{1}{2}$  points. Professor C. P. WIMMER.

Pharmacy 210—Composition and analysis of flavoring extracts. Conference 2 hours, laboratory 10 hours for 8 weeks.  $3\frac{1}{2}$  points. Professor C. P. WIMMER.

Pharmacy 211—Manufacture and composition of cosmetics and toilet preparations. Lectures 2 hours, laboratory 10 hours for 8 weeks.  $3\frac{1}{2}$  points. Professor C. P. WIMMER.

Pharmacy 212—Analysis of cosmetics and toilet preparations. Conference 2 hours, laboratory 10 hours for 8 weeks.  $3\frac{1}{2}$  points. Professor C. P. WIMMER.

It will thus be seen that the work is not definitely fixed, but is made sufficiently elastic to allow it to be adapted to the special needs of individuals.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or damaged apparatus must either be replaced or paid for by the student.

#### SUMMER LABORATORY COURSES 1933

##### *First, Second, and Third Year College Classes*

June 5 to June 24—Department of Chemistry.

June 26 to July 15—Department of Materia Medica.

July 17 to August 5—Department of Pharmacy.

#### SUMMER LABORATORY COURSES 1934

##### *First, Second, and Third Year College Classes*

June 4 to June 23—Department of Pharmacy.

June 25 to July 14—Department of Chemistry.

July 16 to August 4—Department of Materia Medica.

#### UNIVERSITY CLASSES

University students failing in laboratory courses will be advised by the Registrar regarding the summer laboratory schedules.

#### EVENING COURSES

These courses of instruction, although they cannot be substituted for any of our regular work leading to degrees, have proven of great benefit to those who cannot



attend during the day, and to those who desire to pursue special courses of study. General educational credits are not allowed for them. They are designed for special students as well as for members of our regular classes.

Candidates may be admitted at any time during the course, at the discretion of the director of the course, but only those who have attended at least 80 per cent of all exercises and who pursue in a satisfactory manner the courses for which they are registered will receive certificates.

The courses are offered on Monday, Tuesday, and Friday of each week during the periods from Monday, October 2, 1933, to January 12, 1934, and from January 15, 1934, to Friday, May 4, 1934.

The Registrar's office will be open daily for registration from 10 a.m. to 4 p.m. and on Monday, Tuesday, and Friday evenings from 7 to 8 o'clock, during the first two weeks of each semester.

Fees are payable in advance and are not returnable. A registration fee of \$6 is required of each student in addition to the fees stated below.

In the laboratory work, apparatus and material will be furnished without charge. All broken, lost, or injured apparatus must be either replaced, or the expense of such injury be borne by the student.

The following courses are offered:

#### CHEMISTRY

**Evening Chemistry 1-2—Pharmaceutical qualitative analysis.** Classroom 1 hour, laboratory 2 hours each semester. Fee \$25 each semester; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7:30-10:30 p.m.

Lecture: F., 7:30-8:20 p.m.

Laboratory: F., 8:30-10:30 p.m.

This course, which presupposes a knowledge of general pharmaceutical chemistry is designed to train students in the qualitative tests for metal-ions included in the United States Pharmacopœia.

Conditional on the enrollment of ten students.

**Evening Chemistry 3-4—Pharmaceutical qualitative analysis.** Classroom 1 hour, laboratory 2 hours each semester. Fee \$25 each semester; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7-10 p.m.

Laboratory: F., 7-9 p.m.

Lecture: F., 9:10-10 p.m.

This course is a continuation of *Evening Chemistry 1-2* with particular reference to the U. S. P. tests for acid-ions.

Conditional on the enrollment of ten students.

**Evening Chemistry 5-6—Pharmaceutical volumetric analysis.** Classroom 1 hour, laboratory 2 hours each semester. Fee \$25 each semester; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7-10:30 p.m.

This course is designed to give training in the volumetric assays of the United States Pharmacopœia.

Conditional on the enrollment of ten students.

**Evening Chemistry 7—Examination of urine.** Lecture 1 hour, laboratory 2 hours First Semester. Fee \$25; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7:15-10:30 p.m.

Lecture: F., 7:20-8:20 p.m.

Laboratory: F., 8:30-10:30 p.m.

It should be noted that to qualify for "Director" of a laboratory, as defined by the Board of Health of the City of New York, a degree at least the equivalent of a B.S. is required.

In this course the qualitative and quantitative chemical tests of normal and pathological urine are studied; also the preparation and standardization of the necessary reagents.

Conditional upon the enrollment of twenty students.

**Evening Chemistry 8—Examination of urine.** Lecture 1½ hours, laboratory 2 hours Second Semester. Fee \$25; \$10 breakage deposit. Professors H. H. SCHAEFER and L. JAYNE.

F., 7:30-10 p.m.

Lecture: F., 7:30-8 p.m.

Laboratory: F., 8:20-10 p.m.

In this course, a continuation of *Evening Chemistry 7*, the gravimetric, polariscopic, colorimetric, and microscopic examination of urine is studied.

Conditional upon the enrollment of twenty students.

**Evening Chemistry 9-10—Newer remedies.** Lecture 1 hour each semester. Fee \$30. Professor H. H. SCHAEFER.

F., 8:30-9:30 p.m.

The aim of this course is to give the graduate pharmacist an opportunity to become familiar with the chemistry of many "recent" remedies generally classified as "synthetics" which are prescribed by physicians but which are not official. Most of these preparations are rather recent additions to our materia medica and many of them are covered by patents. The products are not selected because of their medicinal merit but rather because of the frequency with which they are prescribed. Nor only will the chemistry of these preparations be considered, but whenever possible, original packages will be shown to the students and the names of their manufacturers given.

Conditional on enrollment of twenty students.

#### MATERIA MEDICA

**Evening Materia Medica 1-2—Principles and practice of bacteriology.** Lecture 1 hour, laboratory 2 hours each semester. Fee \$40 each semester; \$10 breakage deposit. Professor F. HART and assistants.

Tu., 7-10 p.m.

Lectures: 7-8 p.m. Room 42, Pharmacy.

Laboratory: 8-10 p.m.

This course includes the bacterial examination of sputum, excreta, water, air, milk, and ice.

Special attention is given to the standard methods of disinfection and sterilization. The major portion of the time is devoted to the cultivation, morphology, and staining properties leading to the identification of the more common pathogenic bacteria.

Conditional on the enrollment of ten students.

**Evening Materia Medica 3-4—Blood analysis.** Lecture 1 hour, laboratory 2 hours each semester. Fee \$40 each semester. Professor H. TAUB and assistants.

M., 7-10 p.m.

Lecture: 7-8 p.m.

Laboratory: 8-10 p.m.

First semester: Preparation and study of blood smears in health and disease; total and differential counts; special pathology.

Second semester: Blood chemistry, including non-protein and urea nitrogen determinations, sugar, creatinin, uric acid, CO<sub>2</sub>-combining power, chlorides, calcium, cholesterol, and other constituents; hemoglobin estimation, coagulation time; establishing and operating a laboratory.

Conditional on the enrollment of ten students.

**Evening Materia Medica 6—Parasitology.** Lecture 1 hour, laboratory 2 hours  
Second Semester. Fee \$40; \$10 breakage deposit. Professor F. HART and assistants.

Tu., 7-10 p.m.

Lectures: 8-9 p.m. Room 42, Pharmacy.

In this course chief attention is given to changes from normal to abnormal blood due to parasites as well as the more pathogenic blood and intestinal parasites.

Time is also allotted to the mycology of foods.

Conditional on the enrollment of ten students.

**Evening Materia Medica 7-8—Microbiology.** Lecture and demonstration  
1 hour each semester. Fee \$30. Professor F. HART.

M., 7:30-8:30 p.m.

This course includes the methods of manufacture, standardization, administration, and dosage of the commercial biological and bacteriological products and derivatives. Consideration is likewise given to the various methods of sterilization and disinfection as well as the principles of serology and immunology.

Conditional on enrollment of twenty students.

**Evening Materia Medica 9-10—Pharmaceutical sundries.** Lecture 1 hour each  
semester. Fee \$30. Professor C. W. BALLARD.

M., 8:30-9:30 p.m.

While the retail pharmacist handles many items which are included under the general heading of sick-room supplies, he generally has little opportunity for systematic study of these articles and this is particularly true under present-day conditions. The object of this course of lectures is to acquaint him with the manufacture, differences and applications of bandaging and dressing materials, rubber sundries, glass and metal appliances, sutures and ligatures and the miscellaneous articles stocked in the average retail pharmacy and intended for physicians' or household use. The complicated and specialized types of surgical instruments and appliances will not be considered.

Conditional on enrollment of twenty students.

#### PHARMACY

**Evening Pharmacy 1-2—Manufacturing pharmacy.** Lecture 1½ hours, laboratory 1½ hours each semester. Fee \$35 each semester. Professor L. N. BROWN and assistants.

Tu., 7:30-10:30 p.m.

This course is of value to those desiring to prepare and place upon the market lines of specialties. The course is elastic and designed to meet individual requirements. One may take up the study of an entire series of preparations, or any one preparation in considerable detail.

Conditional upon the enrollment of ten students.

**Evening Pharmacy 3-4—Manufacture of cosmetics and toilet preparations.**  
Lecture 1 hour, laboratory 2 hours each semester. Fee \$35 each semester.  
Professor C. P. WIMMER and assistants.

Tu., 7:30-10:30 p.m. Main Lecture Hall.

This course affords a thorough review of the entire subject of cosmetics and toilet preparations, their composition and manufacture. Face lotions, hair dyes and other hair preparations, face

powders and paints, cream (greasy, non-greasy and vanishing), toothwashes and powders, etc., are studied and certain types are manufactured.

Conditional upon the enrollment of ten students.

A summary of the lecture topics will be furnished upon request.

**Evening Pharmacy 5-6—Perfume materials and perfumery.** Lecture 1 hour, laboratory 2 hours each semester. Fee \$50 each semester. Professor C. P. WIMMER and assistants.

M. at 7 p.m. Main Lecture Hall.

This course is of value to persons employed in essential oil houses and perfume manufacturing establishments and others desiring to enter this field. The lectures are illustrated with lantern slides and samples of the materials under discussion are exhibited. The laboratory work comprises the determination of physical constants, testing for impurities, etc. A systematic course in nose-training is included.

A summary of the course will be mailed upon request.

Conditional on the enrollment of ten students.

**Evening Pharmacy 7-8—Ampuls and medicated units.** Lecture 1 hour each semester. Fee \$30 entire course. Professor H. M. CARTER.

F., 7:30-8:30 p.m.

This course provides for the graduate pharmacist a thorough training in the principles of ampul medication both from the theoretical and practical viewpoints. Briefly, it considers the history, the advantages of parenteral administration, the forms and sizes of ampuls of American and foreign makes, together with the actual demonstration of ampul manufacture including glass blowing, filling, sealing, sterilization, etc. The National Formulary ampuls and products of various manufacturers are exhibited and discussed in detail paying strict attention to methods of packaging, storing and dispensing.

Conditional upon the enrollment of twenty students.

THE ALUMNI ASSOCIATION OF THE COLLEGE OF  
PHARMACY OF THE CITY OF NEW YORK

OFFICERS, 1933-1934

*President:* HUGO H. SCHAEFER

*Honorary President:* ADOLPH HENNING

*First Vice-President:* J. H. HECKER

*Second Vice-President:* GUSTAVE BARDFELD

*Third Vice-President:* VITO CALCAGNO

*Secretary:* ABRAHAM TAUB

*Treasurer:* GEORGE C. DIEKMAN

*Registrar:* CURT P. WIMMER

*Executive Board*

F. D. LASCOFF, 1934

V. K. COMMONS, 1935

LESLIE JAYNE, 1936

HARRY TAUB, 1934

JULIAN RONSHEIM, 1935

RUDOLF HAUCK, 1936

L. N. BROWN, 1934

F. J. POKORNY, 1935

ARTHUR J. BAUER, 1936

The Alumni Association aims to promote the interests of the College and student body, and to keep the graduates of the College in touch with each other and with the activities of the College. It holds quarterly meetings jointly with the membership of the New York College of Pharmacy, at which time lectures of scientific and general interest are presented by outstanding persons. The business of the Association is conducted at the bimonthly meetings of the executive board. Several social affairs are tendered each year.

The Association sponsors Alumni Night, an evening of entertainment and awards for first and second year students, and also provides for three medals for highest scholarship in the graduating class. For details see page 25.

Annual dues are \$2.00. Life membership is \$15.00. An engrossed membership certificate is issued to members at \$1.00. All graduates are urged to join the Association and continue their contacts with their Alma Mater.

## ENDOWMENTS

For one hundred and four consecutive years the College of Pharmacy of the City of New York has maintained its annual courses of instruction for the education and training of pharmacists. That this instruction has exhibited a steady extension and improvement is clearly recorded in the successive editions of its annual prospectus. That such a result could not have been attained by the use of students' fees, unaided by other resources, will be readily understood by all who have had experience in educational administration. Such assistance may be said to have begun with the generous contribution of free instruction services by Professors Edward R. Squibb, Charles F. Chandler, and others, in the early history of the institution, and to have continued with the services of their successors, and the unpaid management of officers and Trustees. At various times financial crises have been met by generous donations of money by officers and members, and occasionally by outside friends. In some cases, as when new quarters were to be secured, a new building was to be erected, or herbarium or apparatus to be bought, the sums thus contributed have been large, considering the resources of those contributing.

As indicated in the preceding pages of this Announcement, in addition to the College Course of three years, leading to the degree of Ph.G. there is now provided a University Course of four years, leading to the degree of B.S. in Pharmacy.

It is not to be expected that the scanty revenue derived from the fees of the small number of students who will pursue these advanced studies will begin to provide the necessary means for meeting the additional expenditures. The College must undertake these burdens as its contribution to pharmaceutical education.

Under such conditions, it is felt that an appeal should be made to those who are interested in promoting educational development in America to give their favorable consideration and to lend their financial aid to the present efforts of the College.

Since the actual instruction work of the College calls for the expenditures of our entire income received from students' fees, it follows that we are compelled, like other schools, to seek other sources of income for meeting unusual expenses.

There are also a number of ways in which comparatively small contributions will be immediately productive of great good in specific directions, and several of these are discussed below.

### LIBRARY MAINTENANCE

The library facilities required by men engaged in advanced studies are necessarily much more extensive than those now provided by the College. The research work in which such men will engage will call for a full supply of works of reference, not only in pharmaceutical subjects, but in the sciences contributory to pharmacy. Generous friends of the College, and one such in particular, have made frequent and extensive contributions to the library, but it is highly desirable that an endowment be established that will yield a permanent annual fund of \$500 for such a purpose.

## APPARATUS

The College, thanks to the generosity of the late Mr. Edward Kemp, possesses a splendid working equipment of physical apparatus, suitable for the ordinary purposes of pharmaceutical education. The advanced work of graduate students will require not only extensive additions, but continuous expenditures for new designs in order to keep pace with discovery and improvement.

An endowment of from \$5,000 to \$10,000 would admirably meet this demand.

## MUSEUM

With the exception of the National Museum at Washington, there is no extensive pharmaceutical or materia medica museum in this country. Small museums exist in Philadelphia, Detroit, Cincinnati, at the New York Botanical Garden and elsewhere, but nowhere is there a museum properly comparable with those in London and Berlin. Civic pride, if no other consideration, should suffice to secure the establishment in New York City of a museum proportionate with the importance of the city as the port of entry for more than three fourths of the drugs received into the United States. There are, however, other considerations of far greater importance. Scarcely a week passes without more than one inquiry from importers, brokers or merchants, and even from the city and Federal departments, for unobtainable information concerning commercial articles of this class.

There should be some institution to which such inquiries could turn with reasonable certainty of an accurate reply. Furthermore, the ambition to supply Doctors of Pharmacy who are competent to meet all demands made upon them, even for the discovery of desired unknown facts, renders it imperative that a storehouse of materials for investigation should be available. The ideal location for such a museum is with the department of pharmacy of a strong and active university.

Such a museum involves more than a mere collection of labeled articles in cases. It calls for a comprehensive plan providing for future accessions, and for investigating the utility of new products. This calls for a curator with an encyclopedic knowledge of the subject, and qualified to pursue original researches. Such an institution, thus equipped, could provide a continuous supply of original contributions in economic botany, connected upon the one side with sources of sound scientific information and authentication, and upon the other with the material welfare of our people.

A more creditable and permanent monument to its donor could scarcely be conceived. To establish such a museum, and also to provide properly for its care and maintenance, would require from \$100,000 to \$150,000.

# REGISTER OF GRADUATES

## PHARMACEUTICAL CHEMISTS, OCTOBER 26, 1932

Clunie, Joseph Norman      New York City  
 Hamann, George Peter      Dietrich  
    Brooklyn, N. Y.

(2)

## GRADUATES IN PHARMACY, OCTOBER 4, 1932

Foley, Vincent      Hoboken, N. J.  
 Plotkin, Morris Louis      Newark, N. J.  
 Reddick, Aubert Evans      New York City  
 Rocchio, Philip Paul      Corona, N. Y.  
 Safarik, Joseph John      Springfield, Mass.  
 Winokur, Emanuel      Brooklyn, N. Y.  
 Wishner, Jacob      Brooklyn, N. Y.

(7)

## BACHELORS OF SCIENCE IN PHARMACY, JUNE 1, 1932

Blythe, Rudolph H.      Roxbury, N. Y.  
 Cook, Clayton Mein      Milford, N. Y.  
 Fehder, Paul      Jamaica, N. Y.  
 Mar, George Kaye      Winnipeg, Canada  
 Pond, Frank Nelson, Jr.      Douglaston, N. Y.

(5)

## PHARMACEUTICAL CHEMISTS, JUNE 1, 1932

Armao, John Anthony      New York City  
 Berg, Louis      New York City  
 Brown, Reginald C.      Yonkers, N. Y.  
 Burch, Collingwood Vincent  
    St. Georges, Bermuda

Chasanowitz, Bernard      Corona, N. Y.  
 D'Orazio, Robert Romeo      New York City  
 Dorr, Elinor Utley      St. George, N. Y.  
 Freedman, Samuel      New York City  
 Gain, Ethel Annie Louise      Jeffersonville, N. Y.  
 Ginsbergh, Rubin Robert      New York City  
 Givens, Johnson B.      Freehold, N. J.  
 Heiko, Harold      New York City  
 Hoeler, William J.      Newark, N. J.  
 Hoffman, Bernard William      Woodhaven, N. Y.  
 Isacoff, Harry      Brooklyn, N. Y.  
 Kleinsinger, Bert S.      New York City  
 Koller, Joseph Michael      New York City  
 Pfister, C. Leonard      Brooklyn, N. Y.  
 Pozdena, Milton Otto      Winfield, N. Y.  
 Sasmor, Ernest Jackson      New York City  
 Sher, Philip Benjamin      Brooklyn, N. Y.  
 Silver, Jason Harold      Mount Vernon, N. Y.  
 Silver, Sidney      New York City  
 Vigilante, Ovidio Carl      Corona, N. Y.  
 Wight, Christian Frank      Bethel, Conn.  
 Zilotto, Enrico      Richmond Hill, N. Y.  
 Zlinkoff, Bernard Welch      New York City

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## GRADUATES IN PHARMACY, MAY 26, 1932

Anopol, Annie      New York City  
 Aponofsky, Anna      Little Neck, N. Y.  
 Avignone, Carlo James      Massapequa, N. Y.

## Badagliacca, Vincent Anthony

   Brooklyn, N. Y.  
 Barbera, Anthony Joseph      Brooklyn, N. Y.  
 Bashevkin, Isaac      Brooklyn, N. Y.  
 Becker, Sidney Simon      Brooklyn, N. Y.  
 Belinsky, Benjamin      New York City  
 Belitz, Morris      New York City  
 Beller, Louis      Astoria, N. Y.  
 Berkowitz, Efreml Leslie      Brooklyn, N. Y.  
 Bittar, Dewey      Brooklyn, N. Y.  
 Blick, Richard      Brooklyn, N. Y.  
 Bologh, Sidney David      New York City  
 Burton, Samuel      Brooklyn, N. Y.  
 Busch, David Carlyle      New York City  
 Caso, Attilio Arthur      New York City  
 Chadkin, Jason Abraham      Brooklyn, N. Y.  
 Chernow, Jack      Brooklyn, N. Y.  
 Chu, Kang      New York City  
 Cohen, Benjamin      New York City  
 Colarusso, Thomas G.      Mount Vernon, N. Y.  
 Coller, Gertrude Ethel  
    West New Brighton, N. Y.  
 Coller, Pearl      West New Brighton, N. Y.  
 Cosenza, Salvatore      Brooklyn, N. Y.  
 Cowan, John Wesley      Mamaroneck, N. Y.  
 Cozzolino, Sylvia Rafaela      New York City  
 D'Arco, George Daniel      Brooklyn, N. Y.  
 De Angelis, Dominick Frances  
    Brooklyn, N. Y.

Diecidue, Ignatius      Brooklyn, N. Y.  
 Doctors, Albert      Corona, N. Y.  
 Emrich, Ralph James  
    West New Brighton, N. Y.  
 Erwich, Irving Harold      Corona, N. Y.  
 Febbraio, Edmund      New York City  
 Feinberg, Louis Julius      Brooklyn, N. Y.  
 Feitelberg, Morton      New York City  
 Florentino, Anthony Louis      Brooklyn, N. Y.  
 Friedman, Oscar      Jersey City, N. J.  
 Fromm, Kate      New York City  
 Gershkowitz, Louis      Brooklyn, N. Y.  
 Glaser, Herman      Brooklyn, N. Y.  
 Glaser, Jacob Julius      New York City  
 Glick, Esther Henrietta      Central Valley, N. Y.  
 Glotzer, Isadore George      New York City  
 Gnaizda, Samuel Joseph      Brooklyn, N. Y.  
 Goldberg, David      Brooklyn, N. Y.  
 Goldberg, Isidore George      Brooklyn, N. Y.  
 Goodrich, Minnie      New York City  
 Gordon, Jacob      Brooklyn, N. Y.  
 Granet, Morris      Brooklyn, N. Y.  
 Greenfield, Benjamin      New York City  
 Grenadir, Hyman David      Brooklyn, N. Y.  
 Guatery, Peter Joseph      Middletown, N. Y.  
 Gulli, Antoinette Rita      Brooklyn, N. Y.  
 Gumer, Max Simon      Rochester, N. Y.  
 Haber, Alexander Charles      New York City  
 Handsman, Harry Lerner      Brooklyn, N. Y.  
 Harris, Harry      New York City  
 Heiden, Eugenia      New York City  
 Heller, John Andrew Paul      Poughkeepsie, N. Y.  
 Henkin, Bernard      New York City  
 Homnik, Jacob      New York City  
 Hostomsky, Edward      East Elmhurst, N. Y.



Izenberg, Leo	Patterson, N. J.	Richman, Alexander	Brooklyn, N. Y.
Jacobs, Frank	Brooklyn, N. Y.	Rosen, Abraham	New York City
Jones, Herbert Herman	Union City, N. J.	Rosenberg, Hyman Fred	New York City
Kaplan, Jacob	Pittsfield, Mass.	Rosenberg, Mandel	Middle Village, N. Y.
Kessler, Nathan	Yonkers, N. Y.	Roshkovsky, Jack	Brooklyn, N. Y.
Ketcham, George Vanderbilt	Northport, N. Y.	Rovira, Frank	Pátillas, Puerto Rico
Kirschenbaum, Samuel	New York City	Ruggiero, William E.	Manhasset, N. Y.
Koretzky, Fanny	New York City	Saks, Joseph Herman	Brooklyn, N. Y.
Kristal, Michael	New York City	Salmeri, Frances Mary	Brooklyn, N. Y.
Kross, David Theodore	Brooklyn, N. Y.	Schansinger, Benjamin	Middle Village, N. Y.
Le Blanc, Milton	Middle Village, N. Y.	Schloss, Max	New York City
Levy, Julius	Hoboken, N. J.	Schnaer, Abraham Isador	Brooklyn, N. Y.
Levy, Sarah Ida	Union City, N. J.	Schweig, Harry Karl	New York City
Lubin, Sydney Wellsworth	Brooklyn, N. Y.	Simon, Isidore	Brooklyn, N. Y.
Maclennan, Daniel Grant	Manhasset, N. Y.	Simon, Samuel	New York City
Maduri, Elizabeth Virginia	Brooklyn, N. Y.	Singer, Frank	New York City
Mahler, Henry	New York City	Soikin, David	New York City
Mavrogiannis, John George	New York City	Starman, Arthur Abraham	Utica, N. Y.
Messina, Anthony Pasquale	New York City	Stein, Abraham	Brooklyn, N. Y.
Milchman, David	Brooklyn, N. Y.	Steinhauer, Bernard	Brooklyn, N. Y.
Mufson, Morris	Passaic, N. J.	Tickit, George Beverley	Toronto, Canada
Naliboff, Edward Murray	New York City	Troisi, Mario Philip	New York City
Namiat, Morris	New York City	Trovato, Michael Alexander	Corona, N. Y.
Nardoza, Joseph Salvatore	Hoboken, N. J.	Umlas, Isidore	Brooklyn, N. Y.
Nelson, R. Lewis	Bowling Green, Ky.	Unger, Bernard	New York City
Newman, Percy	North White Lake, N. Y.	Villone, Anna Rose	New York City
Novendstern, David	Jersey City, N. J.	Wagner, Morris	New York City
O'Connor, Harry Joseph	East Elmhurst, N. Y.	Waugh, Theodore	Middle Village, N. Y.
Padnis, Nathan	New York City	Weiss, Stanley Daniel	New York City
Paley, Irving Benedict	Brooklyn, N. Y.	Werst, Francis Bernard	Union City, N. J.
Parrini, Arthur Thomas	Brooklyn, N. Y.	Wishny, Gilbert	New York City
Pavone, Edigio	New York City	Wohl, Benjamin	New York City
Peretzweig, Samuel	Brooklyn, N. Y.	Woiien, David	New York City
Pfeffer, Alfred	New York City	Wunsh, Theodore Eugene	New York City
Photoglou, George Michael	New York City	Yarvis, Samuel	Brooklyn, N. Y.
Pjick, Nathan	Passaic, N. J.	Youran, Morris	New York City
Posner, Murray William	New York City	Zeichner, Harold	New York City
Pucillo, Nataleen Virginia	Tuxedo Park, N. Y.	Zuckerman, Abraham	New York City
Rabinowitz, Ephroim	New York City	Zykorie, Emil	Brooklyn, N. Y.
Rand, George	New York City	(142)	

## REGISTER OF STUDENTS, SESSION OF 1932-1933

## GRADUATE STUDIES

Blythe, Rudolph H.	Roxbury, N. Y.
Cook, Clayton Mein	Milford, N. Y.
Mar, George Kaye	Winnipeg, Canada

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## FOURTH YEAR UNIVERSITY CLASS

Armao, John Anthony	New York City
Brown, Reginald C.	New York City
Cooper, Minor Medford	Upper Jay, N. Y.
D'Orazio, Robert Romeo	New York City
Ginsbergh, Rubin Robert	New York City
Givens, Johnson B.	Freehold, N. J.
Glockner, Abraham	Albany, N. Y.
Heiko, Harold	New York City
Hoeler, William J.	Newark, N. J.
Isacoff, Harry	Somersworth, N. H.
Kleinsinger, Bert S.	New York City
Sher, Philip Benjamin	Brooklyn, N. Y.
Silver, Sidney	New York City
Vigilante, Ovidio Carl	Corona, N. Y.

Wight, Christian Frank	Bethel, Conn.
Ziliotto, Enrico	Richmond Hill, N. Y.

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## THIRD YEAR UNIVERSITY CLASS

Burger, Irving	Peekskill, N. Y.
Gabriel, Joseph, Jr.	Bridgeport, Conn.
Geller, Manuel	New York City
Gioia, Roland George	Union City, N. J.
Goldman, Isidore Charles	Riverhead, N. Y.
Granberg, Milda Otilia	Thornwood, N. Y.
Green, Alex	New York City
Gross, James Ernest	Brockton, Mass.
Kessler, Nathan	New York City
Kucker, Theodore David	Elizabeth, N. J.
Kupersmith, Libby	Leonia, N. J.
Lizio, Joseph Alfred	Long Island City, N. Y.
Lyons, Nathan	Brooklyn, N. Y.
Mende, William Charles	Clifton, N. J.
Mont, Isadore	Peekskill, N. Y.
Mucelli, Dante	New York City

Ortega y Canet, Mario de Jesus		Weinstein, Morton	New York City
Peisachowitz, Jack	Brooklyn, N. Y.	Wishnepsky, Nathan	Monticello, N. Y.
Pisari, Louis Anthony	New York City	Zweig, Samuel	New York City
Pitocchi, Caroline Ellen	Brooklyn, N. Y.	(31)	
Schneider, William Edward	Herman, Jr.		
Seltzer, Walter Maurice	Englewood, N. J.	Adler, Nathan	Stapleton, N. Y.
Thomas, James Grant	New York City	Alward, James Carleton	Port Jervis, N. Y.
Wackstein, Morris	Wells River, Vt.	Anderson, Lloyd	Verona, N. J.
(24)	New York City	Antman, Herbert Robert	Brooklyn, N. Y.
		Armentano, Joseph Lawrence	Jackson Heights, N. Y.

## THIRD YEAR COLLEGE CLASS

SECOND YEAR UNIVERSITY CLASS			
Barone, Angelo Mathew	Brooklyn, N. Y.	Baker, Samuel David	Tompkinsville, N. Y.
Biamonte, Alfred Robert	Cliffside, N. J.	Baumgarren, Harry	Brooklyn, N. Y.
Garizio, John Ernest	Forest Hills, N. Y.	Bazilian, Jacob	Brooklyn, N. Y.
Godoff, Elliott	Brooklyn, N. Y.	Beadle, Kenneth Gumaer	Kingston, N. Y.
Greenberg, William Jacob	New York City	Bennett, Frank	Greenwich, Conn.
Grotzky, Julius	Brooklyn, N. Y.	Bernstein, Moses	New York City
Kaplan, Joseph	Bayonne, N. J.	Bloom, David Alfred	Norwich, Conn.
Levin, Julius	Englishtown, N. J.	Bologh, Joseph	New York City
Lifshutz, Sidney	Long Island City, N. Y.	Borofsky, Julius	New York City
Longyear, Robert Livingston, Jr.	Brooklyn, N. Y.	Burano, John Ernest	New York City
Megna, Michael	Brooklyn, N. Y.	Byron, Grace Marie	Queens Village, N. Y.
Mencher, Gerald William	Brooklyn, N. Y.	Casey, Charles B.	Washingtonville, N. Y.
Pack, Isaac Menshing	Brooklyn, N. Y.	Cerciello, Louis Joseph	Jersey City, N. J.
Rashmajian, Harry	Brooklyn, N. Y.	Chu, James Hing	New York City
Robinson, Clara Elizabeth	Amityville, N. Y.	Cohen, Elias	New York City
Siegel, Ida	New York City	Cohen, Hymen	New York City
Trentadue, Perer	Astoria, N. Y.	Cohen, Joseph	New York City
Waneski, Charles Adolph	Brooklyn, N. Y.	Cooper, Morris Sredna	New York City
Whipple, Ruth Ann	White Plains, N. Y.	Davis, David	Brooklyn, N. Y.
Wohlman, Ella	New York City	Dobroskin, George	New York City
(20)		D'Onofrio, Rocco Elias	Syracuse, N. Y.
		Edghill, Kenneth	New York City
		Englander, Milton	New York City
		Feeny, William James	Ozone Park, N. Y.
		Feldman, Philip Jesse	Mount Vernon, N. Y.
		Fish, Elias	Brooklyn, N. Y.
		Fisher, Arthur Samuel	New York City
		Fleisch, Wolf	New York City
		Friedman, Hyman	Brooklyn, N. Y.
		Friedman, Michell	Ozone Park, N. Y.
		Furman, Marcus	Brooklyn, N. Y.
		Gammer, Irving	New York City
		Gettleman, Carl	New York City
		Gevirtz, Hyman Julius	Brooklyn, N. Y.
		Giuliano, Armida	New York City
		Gold, Alex	Rocky Hill, Conn.
		Goldstein, Maurice	Hightstown, N. J.
		Gomez, Augusto	New York City
		Goodkin, Harry	New York City
		Gorerzky, Israel	Brooklyn, N. Y.
		Grassi, Julius Caesar	Newburgh, N. Y.
		Green, William	New York City
		Greenbaum, Jack	New York City
		Guzberman, Louis	New York City
		Gzibeck, Samuel	Jackson Heights, N. Y.
		Horowitz, David	Staten Island, N. Y.
		Kagle, Arthur	New York City
		Kabner, Paul	New York City
		Kaplan, Leo	New York City
		Kasday, Julius	Corona, N. Y.
		Katz, Philip	Corona, N. Y.
		Kimber, George Henry	Fayetteville, N. Y.
		Kluge, Sol Joseph	New York City
		Koblin, David Charles	Nyack, N. Y.
		Koller, John Andrew	New York City

## FIRST YEAR UNIVERSITY CLASS

Abarno, Frank Edward	Grantwood, N. J.		
Apelhot, Sylvia Peggy	Union City, N. J.		
Barnett, Herbert	Brooklyn, N. Y.		
Birnbaum, Florenz Samuel	Jamaica, N. Y.		
Blumberg, Bernard Lee	New York City		
Bootz, Paul Peter	Mocanaqua, Pa.		
Calta, Robert	Pleasant Plains, N. Y.		
Cassidy, Margaret Mary	New York City		
D'Ambrosio, Vera	New York City		
De Luca, Anthony	Brooklyn, N. Y.		
Dichter, Emanuel	New York City		
Friermor, Louis	Brooklyn, N. Y.		
Greenberg, Irving	Brooklyn, N. Y.		
Greenzeig, Stanley J.	Brooklyn, N. Y.		
Gulesich, John Joseph	New York City		
Henner, Sidney	New York City		
Jones, William Henry	Stamford, Conn.		
Leuci, Alfred Anthony	Flushing, N. Y.		
Luciano, Nick Paul	New Canaan, Conn.		
Mabardie, Alexander Ameen	Paterson, N. J.		
Mercuri, Albert George	Brooklyn, N. Y.		
Rafalowitz, Harry Philip	Brooklyn, N. Y.		
Richman, Edward	Brooklyn, N. Y.		
Ruchames, Max	New York City		
Sands, Frederic Chase	Bronxville, N. Y.		
Siegmeister, Howard William	Pelham Manor, N. Y.		
Tringali, Matthew Lion	Brooklyn, N. Y.		
Turk, Irving	Brooklyn, N. Y.		



Miklean, Eli	New York City	Block, Mildred Beatrice	New York City
Miller, Escher	Kingston, N. Y.	Boccia, Thomas	Corona, N. Y.
Mininsohn, Sydney Wolfe	Maspeth, N. Y.	Bodow, Ephraim Mandell	Syracuse, N. Y.
Modero, Patrick	Hoboken, N. J.	Bonasera, John	Elmhurst, N. Y.
Murray, William Augustus	Cold Spring, N. Y.	Bresler, Minna Isadora	New York City
Needleman, Louis	Brooklyn, N. Y.	Buchberg, Gazella Deborah	New York City
Ossias, Sidney	New York City	Casola, Albert J.	Long Island City, N. Y.
Pape, Emil Thomas	Woodside, N. Y.	Cleaves, Irvin Donald	Patchogue, N. Y.
Pisetzner, Sophie	New York City	Cocozza, Ovid T.	Yonkers, N. Y.
Podolsky, Mortimer	New York City	Cohen, Solomon	New York City
Pomerantz, George	New York City	Coller, Miriam	West Brighton, N. Y.
Puma, Louis	New York City	Collins, Thomas Michael	New Brighton, N. Y.
Rafferty, William Edward		Cooper, Samuel	New York City
	Highland Falls, N. Y.	De Ianni, Arthur	New York City
Raymen, Morris	New York City	De Leo, Vincent Francis	New York City
Reali, Theodore	New York City	Drucker, Arthur	Brooklyn, N. Y.
Reichman, Albert Leon	Stapleton, N. Y.	Dumont-Belzil, Sister Marie	Celina
Reiter, Saul	Harrisburg, Pa.		New York City
Renda, William	Brooklyn, N. Y.	Farias, Remo	New York City
Renzulli, Vincent James	Jersey City, N. J.	Friedman, Boris A.	New York City
Ristaino, Ralph Anthony	Jersey City, N. J.	Godlin, Henry	Woodbourne, N. Y.
Rivellese, Vincent Anthony		Goldberg, Julius	New York City
	Long Island City, N. Y.	Goldberg, Marvin	New York City
Rudick, Gertrude	New York City	Goldenstein, Jacob	New York City
Sabino, James John	New York City	Gomeringer, Leo James	Brooklyn, N. Y.
Sakofsky, Harold Solomon	Florida, N. Y.	Goodman, David	Brooklyn, N. Y.
Samuels, Charlotte	New York City	Gortlieb, Louis	Brooklyn, N. Y.
Schneir, Moe	Brooklyn, N. Y.	Grynfeld, Aron	New York City
Schwartz, Aaron	Woodside, N. Y.	Gundersen, Harry	Brooklyn, N. Y.
Schwartz, David	New York City	Hoar, Charles Manning	Suffern, N. Y.
Schwartzberg, Solomon	Brooklyn, N. Y.	Hochberg, Moe	New York City
Siegal, Isidore	New York City	Hoffman, Samuel	Astoria, N. Y.
Siegel, Nathan	Woodhaven, N. Y.	Ichkowitz, Irving Bernard	Flushing, N. Y.
Siegel, Philip	Woodhaven, N. Y.	Kagle, Louis	New York City
Silverman, Sam	Jersey City, N. J.	Kaliski, Ira Samuel	Jamaica, N. Y.
Soled, Samuel	Jersey City, N. J.	Krakower, Maurice Sylvester	New York City
Spanier, Henry	Brooklyn, N. Y.	Kromnick, Isidore	Brooklyn, N. Y.
Starr, Joseph	Brooklyn, N. Y.	Kross, Jay Alan	Brooklyn, N. Y.
Stecher, Emanuel	Brooklyn, N. Y.	Kubetz, Henry Bruce	Bedford Hills, N. Y.
Stein, Nathan	Brooklyn, N. Y.	Lazarus, Harold T.	Brooklyn, N. Y.
Stillman, David	New York City	Lebbed, Nathan	New York City
Streiffer, S. Harold	New York City	Lederman, Samuel	New York City
Suller, Daniel Davis	South Norwalk, Conn.	Leffer, Robert Myles	Monticello, N. Y.
Sullivan, John Lorenzo		Lemberg, Herman	New York City
	North Brookfield, Mass.	Lessinger, Esther	Yonkers, N. Y.
Tanenbaum, Benjamin	New York City	Levine, Isidore	Brooklyn, N. Y.
Taylor, Harold Lewis	New York City	Lewin, David	Jersey City, N. J.
Tucker, Henry	Bayonne, N. J.	Liekerman, Sam	Brooklyn, N. Y.
Wagman, Jacob	New York City	Lipkind, Morris Jacob	New York City
Wasserman, Milton J.	Brooklyn, N. Y.	Lizzi, William Michael	Brooklyn, N. Y.
Wein, Reuben	New York City	Meyer, Gilbert	New York City
Weintraub, Herman	New York City	Miller, Manuel	New York City
Wilensky, Joseph	Brooklyn, N. Y.	Mitchell, Walter Lawrence	New York City
Wright, William George	Newburgh, N. Y.	Monestersky, Isidore	Brooklyn, N. Y.
Wrobel, Morris	Brooklyn, N. Y.	Morris, Maurice David	Arverne, N. Y.
Ya Deau, William Earl	Palisade Park, N. J.	Myers, Harry Glendon	Northport, N. Y.
Yakimoff, Frank Sheer	Katonah, N. Y.	Nemiroff, Samuel	Port Washington, N. Y.
(122)		Nemzer, Sidney	New York City
FIRST YEAR COLLEGE CLASS		Neshamkin, Mortimer Seymour	New York City
Adler, Jacob	Brooklyn, N. Y.	Nishanian, John	New York City
Bellanca, Mirthe	Brooklyn, N. Y.	Oakley, Maurice James	Briarcliff Manor, N. Y.
Berkowitz, Beatrice	Brooklyn, N. Y.	Orzano, Mary	Oceanside, N. Y.
Berman, Morris Victor	Brooklyn, N. Y.	Paris, Theodore William	Brooklyn, N. Y.
Bezouska, William	Astoria, N. Y.	Passamonti, Anthony Philip	Brooklyn, N. Y.
Bidetti, James	New Rochelle, N. Y.	Photoglou, Nicholas Michael	New York City
Blank, Max	New York City	Pillitteri, Frances Rosali	Lakewood, N. J.



# SYNOPSIS OF UNIVERSITY COURSE STUDIES

SUBSEQUENT TO THE SESSIONS OF 1931-1932

*First Year, 1933-1934 (see page 29)*

*Second Year, 1933-1934 (see page 29)*

*Third Year (beginning with the session of 1934-1935)*

	Class Hours	Laboratory Hours	Points
Organic chemistry	3	0	6
Analytical chemistry (volumetric and gravimetric, including pharmacopœial assaying)	0	18 <sup>1</sup>	9
Macroscopic pharmacognosy	1 <sup>1</sup>	2 <sup>1</sup>	2
Human physiology and first aid	2½	0	5
Bacteriology	2 <sup>1</sup>	4 <sup>1</sup>	4
Theory of pharmacy	2	0	4
Pharmaceutical Latin	1	0	2
Dispensing pharmacy	2	6 <sup>1</sup>	5
Manufacturing pharmacy	0	4 <sup>1</sup>	2
Pharmaceutical economics	1	2	4
German	2	0	4

*Fourth Year (beginning with the session of 1935-1936)*

Organic chemistry laboratory	0	6 <sup>1</sup>	3
Drug assaying and urinary analysis	0	12 <sup>1</sup>	6
Theories of chemistry	1	0	2
Biochemistry	1	0	2
Materia medica	4	0	8
Toxicology and posology	1½	0	3
Medical appliances	1 <sup>1</sup>	0	1
Microscopic pharmacognosy	1 <sup>1</sup>	3 <sup>1</sup>	2½
Advanced physiology	1	0	2
Pharmaceutical jurisprudence and economics	1½	0	3
Manufacturing pharmacy	0	11 <sup>1</sup>	5½
Theoretical and practical dispensing pharmacy	1	2	3
Theoretical pharmacy	3	0	6

<sup>1</sup>During 16 weeks.

# ACADEMIC CALENDAR

1933

- June 5-August 5 Summer Laboratory Courses.  
September 6-8 Registration for first year candidates.  
5-8 Supplementary Examinations.  
13-14 Registration for second, third, and fourth year candidates.  
18 Monday. One hundred and fourth session begins. First, third, and fourth year classes assemble 9 a.m.  
19 Tuesday. Second year classes assemble 9 a.m.  
October 2 Monday. Evening courses start.  
November 7 Tuesday. Election Day, holiday.  
23 Thursday, to November 25, Saturday, inclusive. Thanksgiving holidays.  
December 20 Wednesday, to

1934

- January 2 Tuesday, inclusive. Christmas holidays.  
3 Wednesday. Sessions resumed.  
15-20 Mid-year examinations.  
22 Monday. Second semester, evening courses start.  
February 12 Monday. Lincoln's Birthday, holiday.  
22 Thursday. Washington's Birthday, holiday.  
March 30-31 Spring holiday.  
April 2 Monday. Last day for applying for final examinations with payment of fee for all classes.  
May 4 Friday. Evening courses close.  
7-14 Final examinations for first, second, and third year College and University classes.  
14-16 Final examinations for senior University class.  
23 Wednesday. Alumni Day.  
24 Thursday. College Commencement.  
June 5 Tuesday. University Commencement.

## SCHEDULE OF EXAMINATIONS

### SUPPLEMENTARY EXAMINATIONS

#### *First Year College and University Classes*

1933

- September 5 Tuesday, 9-12, *Phr.* 1-2, Pharmacy.  
6 Wednesday, 9-12, *Chm.* 3-4, Chemistry.  
Wednesday, 2-5, *Chm.* 1-2, Physics.  
7 Thursday, 9-12, *M.M.* 1-2, Botany.  
Thursday, 9-12, *M.M.* 5-6, Posology.  
Thursday, 2-5, *Eng.* 1-2, English.  
Thursday, 2-5, *Hist.* 1-2, American history.

*Second Year College and University Classes*

- September 5 Tuesday, 9-12, *Phr.* 51-52, Theoretical pharmacy.  
 Tuesday, 2-5, *Phr.* 61-62, Commercial pharmacy.  
 6 Wednesday, 9-12, *Chm.* 55-56, Inorganic chemistry.  
 Wednesday, 2-5, *Phr.* 53-54, Pharmaceutical Latin.  
 7 Thursday, 9-12, *M.M.* 57-58, Physiology.  
 Thursday, 9-12, *M.M.* 59-60, Microbiology.  
 Thursday, 2-5, *Ger.* 51-52, German.

*Third Year College and University Classes*

- September 5 Tuesday, 9-12, *Phr.* 101-102, Theoretical pharmacy.  
 Tuesday, 2-5, *Phr.* 107-108, Dispensing pharmacy.  
 Tuesday, 2-5, *Math.* 101-102, Mathematics.  
 6 Wednesday, 9-12, *Chm.* 103-104, Organic chemistry.  
 Wednesday, 2-5, *Chm.* 101-102, Theories of chemistry.  
 Wednesday, 2-5, *Chm.* 107-108, Newer remedies.  
 7 Thursday, 9-12, *M.M.* 101-102, Materia medica.  
 Thursday, 2-5, *M.M.* 103-104, Toxicology.  
 Thursday, 2-5, *M.M.* 109-110, Pharmacal sundries.  
 8 Friday, 9-12, *Phr.* 109-110, Jurisprudence and business pharmacy.

*Fourth Year University Class*

- September 5 Tuesday, 2-5, *Phr.* 151-152, Advanced pharmacy.  
 6 Wednesday, 9-12, *Chm.* 153-154, Food analysis and toxicology.  
 Wednesday, 2-5, *Chm.* 151-152, Inorganic quantitative analysis.  
 Wednesday, 2-5, *Chm.* 155-156, Biological chemistry.  
 7 Thursday, 9-12, *M.M.* 155-156, Physiology.

## MID-YEAR EXAMINATIONS AND TESTS

1934

- January 15-20 A schedule of these examinations and tests will be posted on the bulletin boards. Students not in residence should consult the Registrar for information regarding them.

## FINAL EXAMINATIONS

*First Year College and University Classes*

1934

- May 7 Monday, 9-12, *M.M.* 1-2, Botany.  
 Monday, 2-5, *Chm.* 3-4, Inorganic chemistry.  
 9 Wednesday, 9-12, *Chm.* 1-2, Physics.  
 Wednesday, 2-6, *Phr.* 1-2, 4, 5-6, Pharmacy, arithmetic, history, and ethics.  
 11 Friday, 9-12, *Eng.* 1-2, English.  
 Friday, 9-12, *Hist.* 1-2, American history.



*Second Year College and University Classes*

- May 8 Tuesday, 9-12, *Phr.* 51-52, Theoretical pharmacy.  
 Tuesday, 2-5, *M.M.* 57-58, Physiology.  
 Tuesday, 2-5, *M.M.* 59-60, Microbiology.  
 10 Thursday, 9-12, *Chm.* 55-56, Inorganic chemistry.  
 11 Friday, 9-12, *Ger.* 51-52, German.  
 12 Saturday, 9-12, *Phr.* 61-62, Commercial pharmacy.  
 Saturday, 2-5, *Phr.* 53-54, Pharmaceutical Latin.

*Third Year College and University Classes*

- May 7 Monday, 9-12, *Chm.* 103-104, Organic chemistry.  
 Monday, 2-5, *Chm.* 107-108, Newer remedies.  
 8 Tuesday, 9-12, *Chm.* 101-102, Theories of chemistry.  
 Tuesday, 2-5, *Math.* 101-102, Mathematics.  
 9 Wednesday, 9-12, *Phr.* 103-104, Dispensing pharmacy.  
 Wednesday, 2-5, *Phr.* 109-110, Jurisprudence and business  
 pharmacy.  
 11 Friday, 9-12, *M.M.* 101-102, Materia medica.  
 Friday, 2-5, *M.M.* 103-104, Toxicology.  
 Friday, 2-5, *M.M.* 109-110, Medical appliances and first aid.  
 14 Monday, 9-12, *Phr.* 101-102, Theoretical pharmacy.

*Fourth Year University Class*

- May 14 Monday, 9-12, *Phr.* 151-152, Pharmacy.  
 Monday, 1-4, *Chm.* 151-152, Inorganic quantitative analysis.  
 15 Tuesday, 9-12, *Chm.* 153-154, Food analysis and toxicology.  
 16 Wednesday, 9-5, *Chm.* 155-156, Biological chemistry.  
 Wednesday, 9-5, *M.M.* 155-156, Physiology.











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